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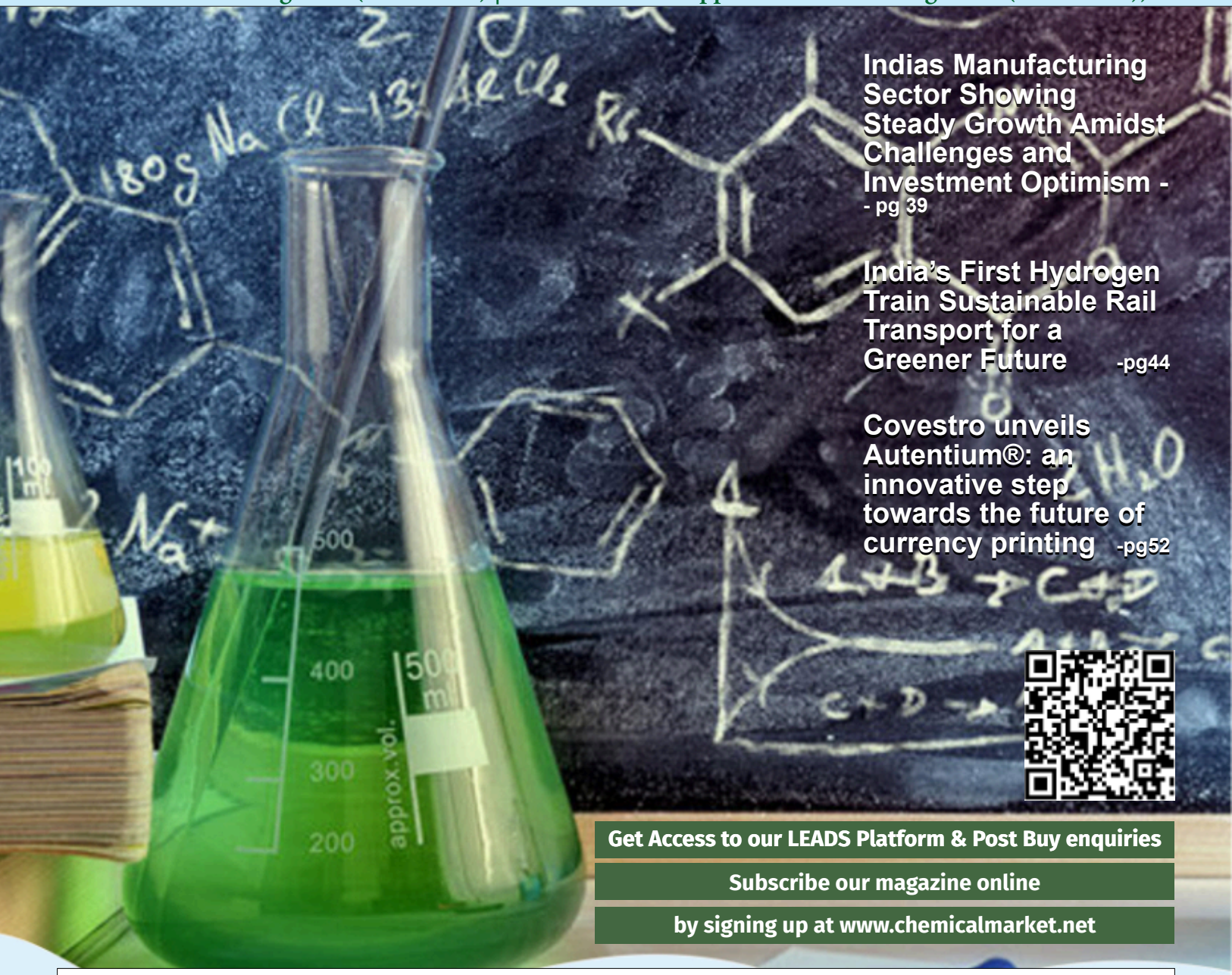
DYES & CHEMICAL MARKET

Connecting the Chemical Industry Together !

A MONTHLY MAGAZINE DEVOTED TO

DYES CHEMICALS PHARMACEUTICALS API TEXTILE AUXILIARIES PAINTS SOLVENTS COSMETICS



Indias Manufacturing Sector Showing Steady Growth Amidst Challenges and Investment Optimism - - pg 39

India's First Hydrogen Train Sustainable Rail Transport for a Greener Future -pg44

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EDITORIAL

CHEMICAL MARKET

A MONTHLY MAGAZINE DEVOTED TO THE DYES, CHEMICALS, PHARMACEUTICALS, TRADE & INDUSTRY SINCE 1982

India's influence in the chemical industry the world over!

India's chemical industry is a cornerstone of its economy, encompassing a wide array of products from basic chemicals to specialty chemicals and pharmaceuticals. Several listed companies on play pivotal roles in this sector, contributing significantly to both domestic markets and exports.

Major Publicly Listed Chemical Companies in India

1. SRF Limited

SRF Limited is a diversified chemicals conglomerate engaged in manufacturing industrial and specialty intermediates. The company's business segments include fluorochemicals, specialty chemicals, packaging films, and technical textiles. With over 8,000 employees, SRF operates eleven manufacturing plants across India, Thailand, South Africa, and Hungary, exporting to more than 90 countries. Their products are integral to industries such as automotive, pharmaceuticals, and packaging.

2. Galaxy Surfactants Limited

Galaxy Surfactants specializes in surfactants and specialty chemicals for the personal and home care industries. Their product portfolio includes over 200 products exported to more than 100 countries, serving clients like Colgate-Palmolive, Dabur, Himalaya, L'Oréal, and Unilever. Performance surfactants account for 60% of their revenue, with specialty personal care products comprising the remainder.

3. Aether Industries Limited

Aether Industries focuses on specialty chemicals, catering to sectors such as pharmaceuticals, agrochemicals, and material sciences. Their expertise lies in advanced intermediates and specialty chemicals, contributing to various high-growth industries.

4. Alkyl Amines Chemicals Limited

Alkyl Amines Chemicals is a leading manufacturer of aliphatic amines, amine derivatives, and other specialty chemicals. These products find applications in pharmaceuticals, agrochemicals, rubber chemicals, and water treatment industries.

5. Anupam Rasayan India Limited

Anupam Rasayan specializes in custom synthesis and manufacturing of specialty chemicals, focusing on agrochemicals, personal care, and pharmaceutical sectors. Their products are crucial for crop protection, non-toxic insect repellents, and various industrial applications.

Importance of These Companies

These companies are vital to India's industrial landscape for several reasons:

- Economic Contribution: They generate significant revenue, contribute to GDP, and provide employment opportunities across various skill levels.
- Industrial Integration: Their products serve as essential inputs for numerous industries, including pharmaceuticals, agriculture, textiles, and consumer goods, thereby supporting the broader economy.
- Technological Advancement: Investments in research and development by these companies lead to innovation, improved processes, and the development of new products, enhancing India's competitive edge globally.

Contribution to Exports and Importing Countries

India's chemical industry plays a significant role in the country's export economy:

- Pharmaceuticals: India is the world's largest provider of generic medicines, with a 20% share of total global pharmaceutical exports. The pharmaceutical industry was valued at an estimated US$42 billion in 2021 and is projected to reach $130 billion by 2030. Major export destinations include the United States, United Kingdom, European Union, and Canada.
- Specialty Chemicals: Companies like SRF Limited and Galaxy Surfactants export specialty chemicals to over 90 and 100 countries, respectively, catering to markets in North America, Europe, Asia, and Africa.
- Gujarat's Contribution: The state of Gujarat is a significant hub for chemical exports, accounting for a substantial portion of India's pharmaceutical exports. In the fiscal year 2021–22, districts like Bharuch, Ahmedabad, and Vadodara collectively exported pharmaceuticals worth over US$1.9 billion.

Importing Countries and Products

Indian chemical companies export a diverse range of products:

- United States: Imports generic pharmaceuticals, specialty chemicals, and active pharmaceutical ingredients (APIs).
- European Union: Procures specialty chemicals, agrochemicals, and pharmaceutical products.
- Africa: Imports generic medicines, personal care chemicals, and industrial chemicals.
- Middle East: Purchases specialty chemicals and packaging materials.

The global reach of these companies underscores their importance in the international chemical industry, reflecting India's growing influence in this sector.

Publicly listed chemical companies in India, such as SRF Limited, Galaxy Surfactants, Aether Industries, Alkyl Amines Chemicals, and Anupam Rasayan, are integral to the nation's industrial and economic framework. Their contributions span domestic supply, technological innovation, employment, and substantial export revenues. By catering to diverse international markets, they not only bolster India's trade balance but also enhance its reputation as a global leader in the chemical industry.

-Rajiv Parikh

CphI - Informa Group			
No	**Exibitions**	**Date**	**Place**
1	CPhI North America	May 20-22, 2025	Pennsylvania Convention Center, Philadelphia
2	CPhI Frankfurt	Oct 28-30, 2025	Messe Frankfurt
3	CPhI Middle East & Africa	Dec 8-10, 2025	Riyadh, Saudi Arabia
4	CPhI China- Virtual CPhI	June 24-26, 2025	Shanghai New International Expo Center
5	CPhI Japan	Apr 09-11, 2025	Tokyo, Japan
6	CPhI Korea	Aug 26 - 28, 2025	COEX, Seoul, Korea
7	CPhI India	Nov 25-27, 2025	Noida, India
MECS (Coating Show)			
1	Asia Pacific Coatings Show	Sept 3-5, 2025	Indonesia
2	Saudi Arabia Coatings Show	May 13-15, 2025	Dammam Saudi Arabia
3	Middle East Coatings Show	Apr 14-16, 2026	Dubai World Trade Centre
4	Coatings For Africa	June 24-26, 2026	Johannesburg, South Africa
DYE+CHEM			
1	Dye+Chem Morocco International Expo	Nov 5-7, 2025	Morocco
2	48rd Dye+Chem Sri Lanka International Expo	March 13-15, 2025	Colombo Sri Lanka
3	Dye+Chem Bangladesh International Expo	Sept 3-6,2025	Bangladesh, Dhaka
4	50th Dye+Chem Brazil International Expo	Nov 2025	Brazil
Red Carpet Events			
1	Bangladesh Int'l Dyes, Pigments and Chemicals Expo	Sept 10-13, 2025	Dhaka, Bangladesh
Turkey (Arkim Group)			
1	InterDye Textile Printing Eurasia	TBD	Istanbul, Turkey
2	Paint Istanbul TURKCOAT	2026	Istanbul
3	Paint Expo Eurosia	Oct 01-03, 2025	Istanbul Expo Center / Istanbul Fuar Merkezi
Other Exhibitions			
1	Paint India	Jan 30-31, 2025	Bombay Exhibition Centre, Mumbai
2	Expo Paint and Coating	Jan 21-23, 2025	Dhaka, Bangladesh
3	CIPI	TBD	Mumbai, India
4	Chemspec Europe	June 4-5, 2025	Koelnmesse, Germany
5	ChemUK Expo	May 21-22, 2025	NEC, Birmingham, UK
6	American Coatings Show	May 5-7, 2026	Indianapolis
7	China Coat China	Nov 25-27, 2025	China Import & Export Complex, Guangzhou
8	Interdye China	Apr 16-18, 2025	Shanghai, China
9	Paint Expo Germany	Apr 14-17, 2026	Messe Karlsruhe Germany
10	India Chem	Oct 2026	Mumbai Exibition Centre, India
11	Water Expo 2025	Feb 26-28 2025	New Delhi
12	Inacoating 2025	July 29-31, 2025	JlExpo Kemayoran, Jakarta - Indonesia

CHENNAI PRICE TREND – 26.02.2025

Inorganic Chemicals	No/ of Units Per Pack	Price Rs.
Acid Slurry (Soft)	50Kgs	127.00
Alum- Ferric	50Kgs	23.00
Ammonium Bicarbonate	25Kgs	26.00
Ammonium Bi fluoride	50Kgs	178.00
[sugar-grade]	50Kgs	178.00
Ammonium Carbonate	50Kgs	92.00
Ammonium Chloride	50Kgs	22.00
Ammonium Nitrate	50Kgs	30.00
Ammonium Phosphate (Mono)	50Kgs	135.00
Ammonium Sulphate	50Kgs	22.00
Antimony Trioxide	50Kgs	3,800.00
Barium Chloride	50Kgs	58.00
Bleaching Powder (33% Cl)	25Kgs	14.00
Borax (Granular)	50Kgs	72.00
Boric Acid (Tech.)	50Kgs	119.00
Calcium Carbonate (Activate)	50Kgs	20.00
Calcium Carbonate (Precipitated)	50Kgs	19.00
Calcium Chloride Lump 70%	50Kgs	12.00
Calcium Chloride-Anhydrous	50Kgs	28.00
Camphor Oil	200Litrs	135.00
Caustic Potash (Flakes)	50Kgs	80.00
Caustic Soda (Flakes)	50Kgs	50.00
Caustic Soda (Prills)	50Kgs	92.00
Chromic Acid Flakes	50Kgs	280.00
Chlorinated Xylene	25kgs	85.00
Copper Sulphate	50Kgs	220.00
Di ammonium Phosphate	50Kgs	34.00
Dioctylmalite	180kgs	82.00
Ferric Chloride (Anhydrous)	50Kgs	38.00
Ferrous Sulphate – crystals	50Kgs	16.00
Hydrochloric Acid	Naked	6.00
Hydrogen Peroxide 50%	50Kgs	33.00
Hyflosupercell	22.7Kgs	138.00
Litharge	50Kgs	220.00
Lithopone B301(China)	25Kgs	124.00
Magnesium Carbonate (Indian)	50Kgs	125.00
Magnesium Carbonate (Indian)	50Kgs	125.00
Magnesium Sulphate	50Kgs	16.00
Mercury	34.5Kgs	7,200.00
Napthaline Balls	50Kgs	130.00
Nickel Chloride	25Kgs	620.00
Phosphoric Acid (85% Tech)	50Kgs	102.00
Potassium Carbonate (Powder)	25Kgs	108 .00
Potassium Carbonate (Granules)	25Kgs	85.00
Potassium Nitrate	50Kgs	115.00
Potassium Permanganate [Tech]	50Kgs	174.00
Potassium Permanganate [Pure]	50kgs.	185.00
Potassium Phosphate (Di)	50Kgs	158.00
S.L.E.S	50kgs	70.00
Soda Ash Light	50Kgs	30.00
Sodium Bicarbonate	50Kgs	33.00
Sodium Bichromate	50Kgs	165.00
Sodium Bisulphite	50Kgs	52.00
Sodium Chlorite 50% (India)	50Kgs	240.00
Sodium Chlorite 80% (India)	50Kgs	280.00
Sodium Cyanide	50Kgs	650.00
Sodium Fluoride	50Kgs	150.00
Sodium Formate	50Kgs	53.00
Sodium Hexameta Phosphate 68%	50Kgs	128.00
Sodium Hydrosulphite [China]	50Kgs	180.00
Sodium Metabisulphite	50Kgs	35.00
Sodium Nitrate	50Kgs	52.00
Sodium Nitrite (China)	50Kgs	60.00
Sodium Silicate	Naked	28.50
Sodium Sulphate (Anhydrous)	50Kgs	15.00
Sodium Sulphide 50-52% (Flakes)	50Kgs	58.00
Sodium Sulphide 58-60% (Flakes)	50Kgs	52.00
Sodium Sulphite 92%	50Kgs	50.00
Sodium Tri polyphosphate	50Kgs	92.00
Titanium Dioxide Anatase	25Kgs	202.00
Titanium Dioxide (Rutile - R-902)	25Kgs	265.00
Trisodium Phosphate	50Kgs	28.00
Zinc Chloride Powder (Tech.)	50Kgs	82.00

Above prices are given in good faith by : **MR. SUBHASH GHORAWAT**

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CHEMICAL MARKET
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1. 10 Days: | 01 month past data | 00 months present data | FREE
2. 03 Months: | 12 months past data | 03 months present data | INR 29000 plus 18% GST
3. 06 Months: | 24 months past data | 06 months present data | INR 34900 plus 18% GST
4. 12 Months: | 48 months past data | 12 months present data | INR 59900 plus 18% GST

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Thank you for your business!
Last Modified: April 2022

BUY INQUIRIES

Product	Quantity	Grade

Sodium Hypochlorite

1 Tonnes **Chemical**

Details : Chemical; Type: Sodium Hypochlorite(Bleach), Composition: Chlorine: Min 110 Gpl, Alkalinity(Measured by Hcl): Min 14gpl Ok, Physical Form: Liquid, Container Type: Tanker, Color: Transparent; Fft: Specific Gravity: 1.1 - 1.2 Sodium Hypochlorite, 110gpl, Tanker

CLICK HERE TO VIEW

Powai, Mumbai, Maharashtra, India

2,4-Dichlorophenylacetonitrile

500 Kgs **Chemical**

Details : 2,4-Dichlorophenylacetonitrile 6306-60-1 100 kg & 500 kg

CLICK HERE TO VIEW

Hyderabad, Telangana, India

Cold Plastic Paint 2k

200 Kgs **Industrial**

Details : Product cold plastic (2k) paint Quantity:200 kg Location:Riyadh, Kingdom of Saudi Arabia Used: Industrial paint And i need hardner for Methyl Acrylate

CLICK HERE TO VIEW

Riyadh Saudi Arabia

Soda Ash Light

400 Tonnes **Chemical**

Details : Appearance: Snow white, free-flowing powder; free from lumps, grits, and other visible impurities. Moisture: Maximum of 1%. pH: Ranges between 10-11. Density: Ranges from 0.5-0.7 g/cm^3. Sodium oxide (Na_2O%): Minimum of 57.25%. Na_2CO_3 (%): Minimum of 99%. Water insoluble (%): Maximum of 0.1%.

CLICK HERE TO VIEW

Ankleshwar, Gujarat, India

Nickel Sulphamate

500 Litres **Technical**

Details : Packing Size:- 25 Ltr Can Spec : IS 1809 : 1979 Technical Grade Description:- Please quote the best price with lead time & COA/MSDS.

CLICK HERE TO VIEW

Indiranagar, Bangalore, Karnataka, India

BUY INQUIRIES

Product	Quantity	Grade

Toluene

21000 Kgs **VirginPure**

Details : Looking to establish a recurring supply arrangement for high-quality Toluene in bulk. Quantity: 21,000 kg , For trading purposes

CLICK HERE TO VIEW

Ankleshwar, Gujarat, India

Toluene

25 Tonnes **Industrial**

Details : 25mt toluene industrial grade,in tanker loadex kandla 60 days credit

CLICK HERE TO VIEW

Mumbai, India

Acetone

30 Tonnes **Industrial**

Details : 30 mt acetone in tanker load exkandla, 60 days credit ,delivered ghaziabad uttar pardesh

CLICK HERE TO VIEW

India

Lithium Borohydride

500 Grams **Any**

Details : Lithium Borohydride CAS No:- 16949-15-8 Qty:- 500 gm Shipping location:- Sonipat, Haryana Description/Use/Application:- R&D use

CLICK HERE TO VIEW

Gaziabad, Uttar Pradesh, India

XANTHAN GUM FOOD GRADE 80 MESH

40 Tonnes **Not Applicable**

Details : Shipping location:- CIF offer to Mombasa Port. Currently in need of this item to support our operations, and we would like to know if your company can supply this product. We value quality and require suppliers that can provide us with consistent and reliable products that meet our stringent standards.

CLICK HERE TO VIEW

Ellesmere Port, Cheshire West and Chester, UK

BUY INQUIRIES

Product	Quantity	Grade

Xanthan Gum

200 Kgs **None**

Details : Application - Cosmetic Use . Xanthan Gum transparent Make-Jungbunzlauer CAS No:- 11138-66-2

CLICK HERE TO VIEW

Ghaziabad, Uttar Pradesh, India

Cyanuric Acid CAS#: 108-80-5

1 Tonnes **Industrial**

Details : Need it to export to China on a repeat basis.

CLICK HERE TO VIEW

Chennai, Tamil Nadu, India

Epibromohydrin CAS No:- 3132-64-7

100 Kgs **Industrial**

Details : Please quote the best CIF Air (Shanghai, China) price, with shortest lead time & COA/MSDS

CLICK HERE TO VIEW

China

4-Piperidone Hydrochloride Monohydrate 99% CAS No:- 40064-34-4

1 Kgs **Industrial**

Details : Please share your best offer along with the COA, delivery time, packing detail and payment terms.

CLICK HERE TO VIEW

Ahmedabad, Gujarat, India

Starvis 3003F BASF CONSTRUCTION POLYMERS GmbH

200 Kgs **Chemical**

Details : Looking to buy 200kg Starvis, 1000kg Vinapor 2941 DF and 100 kg Kelco Crete DG-F of genuince BASF material

CLICK HERE TO VIEW

Melbourne

Textile Testing Market to Reach USD 10.7 Billion by 2030 - Driven by Compliance, Performance, and Sustainability Demands | Valuates Reports

BANGALORE, India, Feb. 19, 2025 / PRNewswire/ -- Textile Testing Market is Segmented by Type (Chemical Testing, Performance Testing, Packaging Testing), by Application (Apparel Industry, Footwear Industry).

The global market for Textile Testing was estimated to be worth USD 8053 Million in 2023 and is forecast to a readjusted size of USD 10740 Million by 2030 with a CAGR of 4.2% during the forecast period 2024-2030.

Claim Your Free Report: https://reports.valuates.com/request/sample/QYRE-Auto-39C3890/Global_Textile_Testing_Market

Major Factors Driving the Growth of Textile Testing Market:

- The textile testing market is expanding due to evolving consumer preferences, regulatory pressures, and rapid innovation.
- Laboratories, equipment manufacturers, and certification agencies are refining their offerings to meet new fabric blends, performance needs, and sustainability goals.
- Brands seek comprehensive analyses covering chemical, physical, and performance attributes to align products with global standards.
- A systematic testing approach helps mitigate risks of non-compliance, recalls, and reputational damage while providing a competitive advantage.
- The rise of e-commerce makes quality verification crucial for maintaining consumer trust in online purchases.
- Specialized industrial applications and the demand for eco-friendly textiles further drive the prominence of textile testing.

TRENDS INFLUENCING THE GROWTH OF THE TEXTILE TESTING MARKET:

Chemical testing plays a pivotal role in fueling the textile testing market by ensuring that fabrics meet stringent global safety and compliance standards. Various chemical analyses detect harmful substances such as formaldehyde, pesticides, heavy metals, and azo dyes, which can pose health and environmental risks. As consumers become increasingly aware of product safety and sustainability, brands face mounting pressure to validate their textiles through rigorous testing. Moreover, chemical testing helps manufacturers refine production processes, reducing the likelihood of rejected batches and costly recalls. By identifying residual chemicals, mills can optimize treatments or switch to safer alternatives, bolstering the brand's reputation for responsible sourcing. This heightened focus on chemical compliance extends across the supply chain, with retailers demanding verified certificates for each shipment. Consequently, the demand for specialized labs, testing instruments, and certification bodies rises significantly, driving steady expansion in the textile testing market worldwide. This scrutiny continuously elevates quality benchmarks.

Performance testing fuels growth in the textile testing market by assessing factors such as durability, colorfastness, tensile strength, and breathability. These evaluations help brands determine whether their products can withstand real-world usage scenarios, aligning with rising consumer expectations for long-lasting, comfortable garments. With activewear, outdoor gear, and technical textiles gaining popularity, rigorous testing ensures that fabrics remain functional under stress, temperature changes, and repetitive motion. Additionally, performance testing aids in identifying manufacturing flaws before large-scale production, minimizing costly returns or recalls. Companies invest in specialized labs and equipment to validate their materials' capability to endure rigorous conditions, further driving demand for comprehensive testing solutions. Furthermore, retailers increasingly demand verified test reports to maintain consistent brand reputation. As a result, performance testing not only spurs innovation in textile manufacturing but also reinforces consumer trust, thereby strengthening the entire textile testing market's growth trajectory. Ultimately, this ensures products meet evolving industry standards.

The apparel industry significantly propels the textile testing market by prioritizing product quality, safety, and durability to meet escalating consumer demands. Major fashion houses and fast-fashion retailers alike require rigorous testing to uphold brand reputation, emphasizing

colorfastness, shrinkage, pilling resistance, and seam strength. As trends shift rapidly, frequent fabric innovations arise, spurring continual testing to validate new blends and finishes for garment suitability. Additionally, global regulations mandate compliance with chemical, flammability, and labeling standards, driving apparel brands to partner with accredited testing labs. This compliance focus is further heightened by rising ethical sourcing concerns, compelling manufacturers to verify production practices through traceability tests. In turn, apparel giants invest heavily in advanced laboratory equipment and skilled professionals. The interplay between consumer preferences, regulatory demands, and brand positioning consistently fuels the need for specialized testing services. As a result, the textile testing market grows in tandem with the evolving apparel landscape worldwide.

Worldwide, governments enforce stringent regulations to safeguard consumer health, environmental preservation, and fair trade practices in the textile industry. These standards cover elements like chemical content, flammability, and product labeling, compelling manufacturers to invest in comprehensive testing protocols. For instance, laws requiring minimal levels of harmful substances drive demand for labs to analyze dyes, finishes, and other compounds used in textile production. Brands risk recalls, fines, or reputational damage if they fail to comply with mandates such as the REACH regulation in Europe or CPSIA in the United States. Consequently, companies allocate significant resources to ensure all materials meet regional and international specifications. This heightened focus on regulatory adherence sustains consistent demand for testing services, labs, and equipment. As standards evolve to address emerging concerns, the textile testing market continues to expand, supporting manufacturers in verifying compliance and maintaining trust among consumers and stakeholders worldwide. Regulatory rigor drives industry expansion.

Modern shoppers increasingly expect textiles that are durable, safe, and consistently high in quality. This heightened awareness stems from social media reviews, brand transparency efforts, and frequent product comparisons. As buyers become more discerning, manufacturers must demonstrate their commitment to quality through independent testing certifications. These assessments evaluate colorfastness, fiber strength, pilling resistance, and other performance characteristics. The results often appear on product labels or brand websites, influencing purchasing decisions. Meanwhile, issues such as shrinkage or fabric defects can lead to reputational harm if not caught early. Consequently, textile producers invest in robust quality control measures, partnering with accredited labs and employing strict internal inspection processes. By validating performance claims and compliance with international standards, companies can maintain consumer trust and justify premium pricing. This emphasis on quality assurance fuels continuous demand for third-party testing services, bolstering the overall textile testing market worldwide. Quality expectations remain an influential market force.

The growing popularity of performance fabrics, from sportswear to protective gear, accelerates the need for rigorous textile testing. These high-tech materials are designed to resist extreme temperatures, repel moisture, or provide enhanced elasticity for specialized applications. Consequently, manufacturers must verify properties such as breathability, thermal insulation, and abrasion resistance to meet both industry standards and consumer promises. Performance textiles often serve sectors where safety is paramount, including military, firefighting, and industrial labor, driving the demand for precise evaluations of strength and durability. Additionally, sports brands rely on testing to ensure garments can support athletes during intense activity while maintaining comfort. As consumers increasingly prioritize functionality, interest in advanced textiles grows, spurring continuous innovation. This cycle of development and validation underpins robust testing requirements, fueling revenue streams for laboratories, equipment providers, and certification agencies that cater to performance-oriented textile segments worldwide. Ultimately, performance-based demands sustain a thriving, globally recognized testing ecosystem.

Fast-fashion brands introduce fresh collections at an unprecedented pace, fueling a need for expedited yet reliable textile testing. Shorter lead times demand thorough but swift evaluations of color accuracy, dimensional stability, and fabric resilience. In such a dynamic environment, even minor defects can derail production schedules, leading to lost revenue or missed trends. Consequently, manufacturers and retailers rely on testing labs that offer quick turnaround times without compromising precision. This pressure amplifies the need for skilled personnel, advanced equipment, and streamlined testing protocols. Additionally, the global nature of fast fashion requires compliance with multiple regulations, further complicating quality control efforts. As consumer appetites for new styles remain insatiable, brands must balance speed with safety and performance. Testing services that enable agile production cycles become indispensable, driving steady growth in the textile testing market while supporting the relentless cadence of modern fashion demands. Such adaptability cements testing as a critical pillar.

Read the full report : https://reports.valuates.com/request/sample/QYRE-Auto-39C3890/Global_Textile_Testing_Market

If you want your report abstract to be published please contact info@chemicalmarket.net

SSPIC announces Q3 FY 24-25 Results

Company registers revenues of INR 818.04 crore and PBT of INR 54.59 crore

Financials:

Southern Petrochemical Industries Corporation Ltd. (SPIC), one of India's pioneering agri-nutrient and fertilizer companies, today announced its financial results for the Quarter ending December 2024.

Quarterly Results:

Particular	Q3FY25	Q3FY24	Year to Date FY 24-25 (Q1+Q2+Q3	Year Ended 31.03.24
Total Income	823.23	519.47	2340.82	1962.16
PBT	54.59	46.53	182.02	142.99

During the current quarter of FY25, the Company registered an income of INR 823.23crores, and Profit Before Taxof INR 54.59crores as compared to an income of INR519.47crores, and Profit Before Tax of INR46.53 croresduring the corresponding quarter of the previous FY24.

The revenue from operations at INR 818.04crores was about 62%higher than the corresponding quarter of FY24at INR506.40 Crores.

Leadership Comment:

Mr. Ashwin Muthiah, Chairman – SPIC & Founder Chairman, AM International, Singapore:

"In Q3FY25, we achieved significant revenue growth and improved profitability compared to the same period of the previous year. This performance reflects our focus on cost and operational efficiencies, savings from transitioning to natural gas as a raw material, and customer-centric marketing efforts.

India continues to present growth opportunities as an agri-economy, and we remain committed to supporting the 'One Bharat One Fertiliser' scheme and our farmers with research-driven agri-nutrient solutions."

Indian Agriculture & Fertilizer Sectors Update

According to the advance estimates shared by the Agriculture Ministry, India' food grain production reached a record level of 164.7 million tonne (MT) in 2024-25 kharif season, registering year-on-year increase of 5.4%. This augurs well for the rural economy and consumption, with improved income prospects for farmers. Further, with above-normal monsoon rainfall and high ground water reservoir levels, the rabi sowing, is also expected to be robust.

During the quarter, the fertilizer industry witnessed challenges in the supply of imported DAP fertilizers and raw materials owing to the prevalent geopolitical situation at the Red Sea. Consequently, shipments were rerouted via the Cape of Good Hope, resulting in longer voyage times and higher freight costs. The delay and shortage in the supply of DAP imports led to price volatility.

Continued on Page 37

UNIVAR SOLUTIONS ACQUIRES BRAD-CHEM HOLDINGS, A LEADER IN CORROSION CONTROL PRODUCTS AND LUBRICANT ADDITIVES

DOWNERS GROVE, Ill., Feb. 6, 2025 /PRNewswire/ -- Univar Solutions LLC ("Univar Solutions" or "the Company") announced it has acquired UK-based Brad-Chem Holdings ("Brad-Chem") and its affiliated entities, which includes the acquisition of Brad-Kem, the joint venture co-owned by Brad-Chem and its partner, DEM, based in Belgium. Brad-Chem, a leader in corrosion control products and lubricant additives, will enhance Univar Solutions' existing Ingredients & Specialties business and help accelerate its ability to meet growing customer demand for the distribution and blending of specialty lubricant additives, specialty base stocks, and functional additives to various industries throughout the United Kingdom and Europe.

Brad-Chem specializes in the distribution and blending of specialty lubricant additives, multi-metal corrosion inhibitors, copper passivators, solid lubricants, and dispersions for the lubricants, metal treatment, cleaning, deicing, and water treatment industries in over 40 countries across Europe.

"This acquisition progresses our ambitious goals to strengthen the support we provide customers across Europe, by offering a larger portfolio of specialty products and additive blending capabilities in the Lubricants and Metalworking Fluids, and Coatings, Adhesives, Sealants and Elastomers (CASE) markets," said Nick Powell, president of Global Ingredients & Specialties, Univar Solutions. "Combining Brad-Chem's products and partners with our expansive global distribution network and technical expertise will bring significant advantages to customers and suppliers."

"The acquisition is an exciting opportunity for our Performance Materials business to meet increasing customer demand for specialty base stocks and functional additives that can help our customers formulate high-performance products that reduce energy usage, extend service life, and improve corrosion management," said Matthew Oliver, global vice president of Performance Materials, Univar Solutions. "This agreement shows our continued commitment to expand our solutions reach into markets and applications that are performance-driven and embody key elements of the sustainability agenda."

"We are excited to be part of Univar Solutions' world-class organization," said Chris Brady, managing director, Brad-Chem. "The acquisition will help build upon our shared technical expertise, customer service strengths, and product portfolio. It's a great fit between companies that share excellent market reputations, operational and business excellence, and an uncompromising focus on innovation."

Source : PRNewswire

SABIC'S NEW CONDUCTIVE NORYL GTX™ LMX RESINS FEATURE SUPERIOR DIMENSIONAL STABILITY FOR INLINE PAINTABLE AUTOMOTIVE EXTERIORS

- Innovative polyphenylene ether (PPE) blend technology has been engineered to help meet the dimensional stability needs of larger and more complex EV service flaps.
- New conductive NORYL GTX™ LMX resins combine high heat resistance for inline painting with very low moisture absorption for superior dimensional stability vs. incumbent PA-based resins.

Bergen op Zoom, The Netherlands, February 10, 2025 - SABIC, a global leader in the chemical industry, has launched NORYL GTX™ LMX310 resin, the first in a new family of resins with enhanced dimensional stability. This innovative material is well-suited for inline paintable automotive applications, such as service flaps for electric vehicles (EVs). In particular, this new grade

addresses the challenges of larger, asymmetrically shaped service flaps that are common in hybrid and fully electric vehicles.

The development efforts around this new material leveraged the growing pool of expertise available under SABIC's BLUEHERO™ electrification initiative, which focuses on enabling the automotive industry to accelerate the shift to efficient, high-performing, and safe EVs.

NORYL GTX LMX310 resin is an unfilled, conductive PPE blend with very low moisture (LM) absorption. The high moisture sensitivity of PA6 and PA6.6 compounds may cause warpage and decrease the aesthetic appeal of the vehicle. Testing performed by SABIC has demonstrated that the new grade absorbs 85 percent less moisture at equilibrium than incumbent PA-based materials, reducing the risk of warpage by up to 90 percent.

Luc Govaerts, Director, Formulation and Application Technology, SABIC Polymers, Specialties BU adds: "Based on our proprietary technology, NORYL GTX LMX310 resin also offers the high heat resistance required for inline painting. This helps automakers ensure Class A color matching, reduce costs and lower their CO2 footprint, as it eliminates the need for additional equipment and process otherwise needed for adequate offline painting."

Several major automotive OEMs are already working to validate SABIC's NORYL GTX LMX310 resin for EV service flaps and other inline painted automotive exteriors, such as door handles.

Source : Press Release

DELOITTE AND CAS PUBLISH NEW REPORT ANALYZING THE LITHIUM-ION BATTERY RECYCLING INDUSTRY AMID GROWING DEMAND FOR SUSTAINABLE ENERGY SOLUTIONS

HONG KONG and COLUMBUS, Ohio, Feb. 19, 2025 /PRNewswire/ -- Deloitte and CAS, a division of the American Chemical Society specializing in scientific knowledge management, announced today the release of a collaborative report, Lithium-Ion Battery Recycling: Market & Innovation Trends for A Green Future. This report is the first shared project between the two organizations since their strategic collaboration announcement last year.

Growing demand for electric vehicles, renewable energy storage, and consumer electronics is driving an urgent focus on sustainable battery recycling solutions. The report by CAS and Deloitte is a comprehensive analysis of lithium-ion battery recycling and covers both market and scientific perspectives on this rapidly evolving industry. It includes insights into the market dynamics, technological advances, and strategic pathways to profitability in the sector and highlights the key role of battery recycling in addressing resource scarcity and environmental challenges amid growing demand for sustainable energy solutions.

Lithium-Ion Battery Recycling: Market & Innovation Trends for A Green Future combines the CAS unparalleled data and scientific expertise with Deloitte's market and business analysis to explore the latest developments in the industry across six key dimensions: policy, capacity expansion, technological innovation, digital solutions, cross-sector collaboration, and pathway to profitability. Among other trends, the report explores how recycling technology innovation and digital solutions are transforming the battery recycling industry, driving improvements in efficiency, recovery rates, and environmental impact and accelerating the global transition to a low-carbon future.

"We are pleased to develop and provide industry insights and solutions based on CAS scientific data," says

Kevin Guo, Deloitte China National Industry Program leader. "Science and technology innovations have made remarkable progress in multiple fields, and Deloitte China looks forward to continuing to work with CAS to make a significant impact on the industry."

"This in-depth report showcases the powerful synergy of Deloitte's market insights and CAS unmatched scientific data and technical expertise. Through this collaboration, together we aim to accelerate breakthroughs on critical global challenges, such as sustainable energy, and enable innovators across industries to make more confident business decisions," said Manuel Guzman, President of CAS.

Source : CAS; Deloitte

LYONDELLBASELL SELECTED BY INDIAN OIL CORPORATION LTD. FOR ADVANCED HDPE TECHNOLOGY

Rotterdam, January 28, 2025 – LyondellBasell (LYB), the world's largest licensor of polyolefin technologies, today announced that Indian Oil Corporation Ltd. (IOCL) has selected its Hostalen Advanced Cascade Process (Hostalen ACP) technology for a new 500 kiloton per year (kta) high-density polyethylene (HDPE) facility in Paradip, India.

The new HDPE plant will be integrated into IOCL's Paradip complex, one of India's largest integrated refinery-petrochemical complexes. Located on the eastern coast of India in the state of Odisha, the Paradip facility plays a strategic role in serving the growing polymer market in the Indian subcontinent. The complex, which includes a 15 million tonnes per year refinery, will benefit from the addition of this state-of-the-art HDPE unit to its existing petrochemical operations.

"This collaboration exemplifies our commitment to building long lasting partnerships that address our customers' unique needs while contributing to global solutions," said Patrik Schneider, Director of Global Licensing at LYB. " The low-pressure slurry HDPE process is already well known to the Indian market and the resins are much appreciated by converters across all sectors."

This marks the eighth technology license agreement between LYB and IOCL, further fostering the relationship between the two companies. In total, more than 2,500 (kta) of polyolefin capacity have now been licensed, with the other licenses having been installed at IOCL's Paradip but also at the Panipat sites. IOCL not only operates Hostalen ACP process technology but is also a major Spheripol PP process technology operator in India.

The new plant will utilize LYB Avant Z501 and Avant Z509-1 catalysts to produce a comprehensive range of multi-modal HDPE products. The Hostalen ACP process enables the use of a single catalyst family based on Ziegler chemistry to produce the full range of resins, thereby avoiding the production of lower-value transition products.

The Hostalen ACP process technology produces high-performance, multi-modal HDPE resins that set industry standards for stiffness-to-toughness balance, impact resistance, and stress cracking resistance. These advanced materials serve critical applications in infrastructure pipes but also sets a standard in film, blow molding, and caps & closure manufacturing, offering significant processing advantages to end-users.

New licensees can take advantage of LYB in-house expertise of continuous production improvement, sustainable product development and catalyst knowhow, by optionally joining our Technical Service program.

In addition to the Hostalen ACP process

technology, the LyondellBasell portfolio of licensed polyolefin processes and catalysts includes:

- Spheripol – The leading PP process technology with more than 35 million tons of licensed capacity with globally recognized quality grades with leading monomer consumption and investment costs to make it the technology of choice.
- Spherizone – The breakthrough multi-zone circulating reactor provides a unique and innovative platform to manufacture polypropylene products with novel architecture and enhanced properties.
- Metocene PP – Innovative add-on technology produces specialty polypropylene products using single-site catalyst systems.
- Lupotech – The market leader on high pressure technology offers, with its high conversion rates and effective heat recovery system, the lowest operating and investment costs for the production of low density polyethylene (LDPE) and ethylene vinyl acetate (EVA) copolymers
- Avant – Advanced Ziegler-Natta, including non-phthalate, chromium and metallocene catalysts for entire range of polyolefin production.

Source : LyondellBasell

LG CHEM TO CO-DEVELOP ADHESIVES FOR ELECTRONIC COMPONENTS WITH HL MANDO

SEOUL, February 25, 2025 – LG Chem announced today that it will collaborate with HL Mando, a leading Korean automotive parts maker, to co-develop adhesives for automotive electronic components. This move aims to expand LG Chem's presence in the automotive adhesive market.

HL Mando, a pioneering global Software Defined Vehicle (SDV) company within the HL Group, develops core components for autonomous driving solutions and vehicle safety. The company also leads the standardization of electronic components and materials in the HL Group's automotive sector.

LG Chem will conduct joint project development and application testing with HL Mando on thermal gap fillers for advanced driver assistance system (ADAS) control components such as cameras and radars, and insulating adhesives for vehicle steering and braking systems. In particular, LG Chem will expand the scope of collaboration to include thermal and adhesive materials for next-generation electronic components.

In general, thermal gap fillers for ADAS control components are characterized by high thermal conductivity and undergo various torture tests as they require high reliability. LG Chem has the technology to enhance the thermal conductivity and stability of existing thermal gap fillers for better reliability. LG Chem is aiming to start mass-producing thermal gap fillers in 2026.

When it comes to insulating adhesives for vehicle steering and braking systems, it is important to maintain the adhesion and insulation performance to endure the high heat generated while the motor is in action. LG Chem's insulating adhesives feature shorter curing times and improved productivity while meeting the key properties, allowing optimized processes for its partners.

"We are committed to developing customized solutions and eco-friendly technologies regarding adhesives, spanning from automotive bodies to various electronic components," said Kim Dong-choon, President of LG Chem's Advanced Materials Company. "We will provide innovative and reliable adhesive solutions through our collaboration with HL Mando."

Source : LG Chem

TORAY DEVELOPS HIGH-EFFICIENCY MEMBRANE DOUBLING FILTRATION PERFORMANCE TO BOOST PHARMA MANUFACTURING PRODUCTIVITY AND QUALITY

Tokyo, Japan, January 27, 2025 – Toray Industries, Inc., announced today that it has developed a high-efficiency separation membrane module for biopharmaceutical manufacturing processes. This module delivers more than double the filtration performance of conventional counterparts by reducing clogging. It should also lift biopharmaceutical yields to more than 90% and enhance purification.

The company will initially supply prototypes to diverse customers to evaluate in purification processes (note 2) for producing gene therapy drugs (note 3) with a view to swift commercialization.

Recent years have seen the pharmaceutical market shift from conventional small-molecule drugs to biopharmaceuticals. Gene therapies and other treatment modalities are also coming to market in what seems to be an ongoing trend. A prime downside is the high manufacturing costs for these biopharmaceuticals, which are driving up medical expenses.

Gene therapy drugs are made with cultured cells. Purification entails using a depth filter (note 4) to remove cell fragments from the culture medium, after which an ultrafiltration membrane (note 5) removes impurities like proteins. Depth filter clogging or gene therapy drug adhesion to the ultrafiltration membrane can cause active ingredient losses, leading to higher costs.

Toray's new separation membrane module comprises a depth filter incorporating multiple types of non-woven fabric and a hollow fiber ultrafiltration membrane.

The company tapped technologies it amassed in innovating air filter products to develop the depth filter. Optimizing the fiber thickness and void structure of the nonwoven fabric has enhanced filtration, improving gene therapy permeability and impurity removal.

In creating its ultrafiltration membrane, Toray employed hollow fiber membranes incorporating anti-fouling, surface-hydrophilization technology that it developed through its work on artificial kidneys (note 6). This advance prevents substances from adhering to the membrane, resisting protein adsorption and reducing clogging.

By combining these technologies, Toray has confirmed that pharmaceuticals made using this module deliver purity and quality levels equivalent to or higher than commercial offerings. They also halve the loss rate in the purification process for gene therapies, achieving a yield of around 90%.

Reduced membrane clogging enables more than double the continuous filtration time compared with generally used membrane modules. This should help to stabilize product quality and cut manufacturing costs. Another benefit is that Toray's technology for miniaturizing hollow fiber membrane modules helps to save space in manufacturing processes.

Leveraging these features should help lower gene therapy production costs by reducing losses and boosting yields. Also, the new module could serve in manufacturing processes for other biopharmaceuticals. Toray looks to develop it for diverse uses to address the needs of pharmaceutical manufacturers, for instance, by preventing clogging and extending usage in continuous culturing processes.

Toray will establish a mass production system and looks to launch sales during the fiscal year ending in March 2026.

Funding for this R&D effort came partially from a Japan Agency for Medical Research and Development grant under Project No. 18ae0201001h0001, which focuses on foundational technology development to industrialize regenerative medicine and aims to develop gene therapy manufacturing technologies.

Toray will exhibit its new module at nano tech 2025, to be held from Wednesday, January 29, through Friday, January 31. The company will keep striving to develop high-value-added products that leverage advanced materials technologies. It will thereby endeavor to materialize its corporate philosophy of contributing to society by creating new value while driving sustainable growth.

Source : Toray

SYENSQO PARTNERS WITH MEZLIGHT TO LAUNCH THE

WORLD'S FIRST STERILE REUSABLE SURGICAL TASK LIGHT

Brussels, January 28, 2025 - Syensqo, a leading global provider of advanced performance materials and chemical solutions, and MezLight LLC, specialists in medical device solutions, have collaborated to bring an innovative surgical lighting system to market that features major components molded in Radel® polyphenyl sulfone (PPSU).

The resulting MezLight is the world's first sterile surgical task light designed to provide bright, focused high-definition illumination for the operating room and ease the physical burden on surgeons, who traditionally wear heavy and cumbersome headlamps for hours on end. The adjustable arm enables accurate illumination of the work area and improves ergonomics for the surgeon by removing the weight associated with conventional headlights. It also adds the benefit of not obstructing face shields.

"We are very pleased to have been a part in this breakthrough medical innovation," says Natalie Dragunat, Global Marketing Manager at Syensqo. "The MezLight demonstrates the superior performance offered by our specialty polymers to the healthcare industry, including high mechanical durability, heat and chemical resistance, sterilizability and hydrolytic stability."

Top engineering challenges to be met in the development of the MezLight were the design of a light that could be steam sterilized multiple times and have the necessary mechanical robustness for the grabbing and positioning during application. A high-temperature-resistant material was needed to handle the heat from the LED component and ensure the polymer's high glass transition temperature would prevent deformation. Radel® PPSU was selected for the removable shield of the light. It was also chosen for the power and brightness control enclosure, which is sealed against moisture ingress. The system has been successfully laboratory tested to survive a minimum of 100 autoclave cycles.

Bill Dorr, Director of Product Design & Quality at MezLight, adds: "By designing with Radel® polymers, we were able to implement our vision of a surgical task light that eliminates the physical discomfort, poor ergonomics and distraction associated with traditional headlights, while at the same time maximizing the expected product life despite the harsh conditions of repeated cleaning and steam sterilization."

Main users of the patented MezLight with components molded in Syensqo's Radel® PPSU are hospitals, ambulatory surgical centers, military medical and veterinary facilities.

Source : Press Release

GSK TO SHOWCASE LATEST RESEARCH AT THE INTERNATIONAL RSV SYMPOSIUM TO ADVANCE RSV PREVENTION IN ADULTS

GSK plc (LSE/NYSE: GSK) will share its latest research findings on the respiratory syncytial virus (RSV) at the 13th International RSV Symposium in Iguazu, Brazil (12-15 March). This symposium brings together the world's leading experts in the field to discuss the latest advancements in RSV research, prevention, and treatment.

During the conference, GSK and collaborating experts will present a total of 17 abstracts covering a range of topics, including the epidemiology and burden of RSV, several late-stage clinical read outs on Arexvy (respiratory syncytial virus vaccine, recombinant adjuvanted), GSK's RSV vaccine, cost-effectiveness modelling, and analysis of the potential impact of different circulating RSV strains on the efficacy of GSK's RSV vaccine.

Susie Barnes, SVP, Head of Global Medical Affairs, Vaccines said: "As a leader in innovation and prevention, we are committed to collaborating with the global scientific community to better understand the challenge of RSV in adults. To date, more than 11 million adults globally have received our RSV vaccine, generating robust data on the impact of immunisation to help improve public health and protect those at risk."

An estimated 64 million people globally of all ages are impacted by RSV every year, including older adults and those with certain underlying medical conditions.2 Despite RSV vaccines, including GSK's vaccine, being available in over 60 markets, only a minority of eligible adults have been immunised so far. In the US, about 24% of eligible adults had received a RSV vaccine by the end of the 2023–24 season.3 The International RSV Symposium is an opportunity to present data to strengthen understanding of the risks of RSV in adults and the potential benefits of RSV vaccination amongst healthcare professionals and the scientific community.

Source : GSK

RAYTHINK SHOWCASES CUTTING-EDGE INFRARED THERMAL IMAGING SOLUTIONS FOR THE OIL AND PETROCHEMICAL INDUSTRY AT EYGPES 2025

YANTAI, China, Feb. 17, 2025 / PRNewswire/ -- Raythink Technology Co., Ltd. ("Raythink"), an innovator in the infrared thermal imaging industry, makes a high-profile appearance at EGYPES 2025. Raythink™ presents its innovative technologies and thermal imaging products at Hall 1, booth 1E49, at Egypt International Exhibition Center.

The oil and petrochemical industry involves large-scale equipment and complex processes, often dealing with high temperatures, high pressures, and explosive hazards. Traditional industrial safety inspection methods face inefficiency and high risk. Infrared thermal imaging converts infrared radiation into visible thermal imaging, offering non-contact temperature measurement, high efficiency, precise equipment condition monitoring, and traceable data for the oil and petrochemical industry applications.

At this exhibition, Raythink™ presented comprehensive solutions and core products tailored to the entire production process of the oil and petrochemical industry. These solutions cover various applications, including equipment condition monitoring and fault diagnosis, pipeline leak detection, high-temperature equipment monitoring, tank level detection, and electrical equipment inspection, which aim to detect faults and improve production efficiency.

The exhibition highlights included Raythink™'s cost-effective handheld thermal imager the RM200 series, RM305, CX200+, and CX200SE+, featuring precise temperature measurement and high-resolution infrared detectors. The RM200 series, equipped with different focusing methods and lens sizes to meet diverse customer needs. Additionally, Raythink™ introduced the RG600C and GT4260F gas infrared detection devices. The RG600C, equipped with high spatial resolution and sensitivity uncooled detector, enables non-contact temperature measurement, and visual gas leak localization while meeting daily precise temperature measurement needs, making it an ideal choice for gas leak detection, emission management, and industrial safety inspection in the oil and petrochemical industry.

The exhibition also showcased various online infrared thermal imaging solutions. The TN220, designed for real-time temperature monitoring in confined spaces such as factory power systems' electrical cabinets, was exhibited alongside the TN460 and ATR1280. The TN460 features a fully upgraded precise temperature measurement algorithm, supporting high-precision, high-temperature equipment monitoring in the ultra-high temperature range of 0°C to +2000°C. The ATR1280 is equipped with an industry-leading 1280*1024 high-resolution infrared detector, providing more precise thermal imaging and accurate temperature measurements suitable for specific situations.

Infrared thermal imaging technology provides efficient, precise, and safe solutions for equipment condition monitoring and fault diagnosis in the oil and petrochemical industry. It helps enterprises achieve safe production, cost reduction, efficiency improvement, and intelligent transformation.

Source : PRNewswire

TORAY INNOVATES NYLON 66 CHEMICAL-RECYCLED TECHNOLOGY THAT BOOSTS PLASTIC RECYCLING RATES

Tokyo, Japan, February 19, 2025 – Toray Industries, Inc., announced today a breakthrough in recycling nylon 66. The company recently deployed a proprietary depolymerization technology using subcritical water (see note 1) to depolymerize this resin uniformly and efficiently in just minutes, and recover it as a raw monomer material.

Demand for nylon 66 is estimated at 100,000 metric tons annually in Japan and 1.3 million tons worldwide. Its high heat resistance and strength make it essential for automotive and industrial applications. These include automotive textiles such as airbags and tire cords, and plastic components such as radiator tanks, cylinder head covers, and oil pans. Tighter recycling regulations for automotive and other plastics in Japan

have made it mandatory to collect used nylon 66-based airbags, making it a promising material for chemical recycling.
Chemical-recycled nylon 6 (note 2) for which demonstration efforts are underway, entails recovering a monomer called caprolactam. Contrastingly, the process for chemical-recycled nylon 66 requires recovering hexamethylenediamine and adipic acid monomers. Toray drew on its expertise in nylon 6 chemical-recycled technology to assess the depolymerization reaction of nylon 66 in subcritical water. It developed a proprietary technology to suppress side reactions, making it possible to efficiently recover high yields of those two monomers and regenerate nylon 66 through repolymerization. Using Toray's technology to make nylon 66 should halve carbon dioxide emissions compared with production from petroleum-based sources.

Toray looks to initially target automotive materials, establishing technologies to separate other materials in such used equipment as airbags, and technologies to depolymerize nylon 66 and separate and refine monomers. By 2025, the company plans to set up a framework to verify quality and evaluate customers through sample work. It will prepare for full-fledged mass production in around 2030, when stricter plastic recycling regulations are enacted.

The company will develop a comprehensive nylon recycling technologies for both nylon 6 and nylon 66. It plans to broaden its chemical-recycled technologies beyond apparel and automotive materials to other industrial applications to help create a circular economy and contribute to carbon neutrality.

One goal of the Toray Group Sustainability Vision for 2050 is to contribute to a world where resources are sustainably managed. The company will keep undertaking R&D to realize a sustainable, recycling-oriented society, as part of ongoing efforts to realize its corporate philosophy of "contributing to society through the creation of new value with innovative ideas, technologies and products."

Source : Toray

LUMMUS AND RESYNERGI ANNOUNCE COMMERCIAL AVAILABILITY OF MICROWAVE-POWERED PLASTIC PYROLYSIS TECHNOLOGY

HOUSTON, March 6, 2025 – Lummus Technology, a global provider of process technologies and value-driven energy solutions, and Resynergi, a leading innovator in modular plastic recycling technology, announced the commercialization of Resynergi's Continuous Microwave Assisted Pyrolysis (CMAP) Modules. Lummus and Resynergi established this partnership in 2024 and have made rapid progress in developing and commercializing the CMAP technology, which converts plastic waste into circular pyrolysis products significantly faster and more efficiently than traditional pyrolysis methods.

"This milestone demonstrates how Lummus and Resynergi are advancing the circular economy with their decentralized solution which makes it easier and faster to transform plastic waste into valuable resources," said Leon de Bruyn, President and Chief Executive Officer of Lummus Technology. "Now that the technology is available, we can work with customers to integrate this advanced solution into existing infrastructure, helping close the loop on plastic waste and drive sustainability in our industry."

Unlike conventional pyrolysis, Resynergi CMAP Modules use microwave energy to break down plastic molecules faster, with significant reduction in CO2 emissions compared to conventional polymer production. Its modular design allows for rapid deployment, making it possible to install and operate units in months rather than years. Lummus will fabricate and supply the modules, leveraging its global fabrication network and long history of supplying modular and proprietary equipment.

"The world can't wait for large factories and recycling facilities to come online to process our mounting plastic waste crisis," said Resynergi CEO Brian Bauer. "The commercial offering of our modules is a crucial milestone in the viability, speed and impact of a circular future for plastic. We're proud to have Lummus Technology as our trusted partner to bring our technology to market and make advanced recycling not only possible and profitable but friendly, **safe and clean for local municipalities.**"

Source : Lummus Technology

BASF'S PERSONAL CARE BUSINESS LAUNCHES VITAGUARD® A, AN INNOVATIVE ENCAPSULATION TECHNOLOGY FOR RETINOL

- **Based on BASF's patented solid lipid encapsulation technology to stabilize retinol in cosmetic formulations**
- **Benefits of retinol encapsulation counters known drawbacks such as irritation and stability**
- **Delivers proven anti-ageing benefits, including visible improvement of forehead wrinkle appearance**

Hong Kong SAR, China – January 23, 2025 – BASF's Personal Care business is launching a new ingredient, Vita-Guard®A to capture the continuous market demand for retinol, while reinforcing its position as a Hero ingredient in cosmetics. This latest innovation is based on the encapsulation of free retinol. Retinol is a powerful anti-aging molecule widely used in cosmetic applications. However, it can also cause skin irritation and is prone to light and air degradation, making it difficult to be widely utilized by formulators. VitaGuard® A was developed using patented solid lipid particles, protecting retinol from degradation, limiting skin irritation and allowing better skin bioavailability for improved cosmetic efficacy.

Several in vitro and ex vivo studies conducted by BASF have shown VitaGuard® A to improve retinol stability in cosmetic formulations compared to non-encapsulated retinol, enhance skin bioavailability and prevent retinol-induced irritation. Additionally, it clinically improves the forehead wrinkles appearance, skin elasticity and skin tone evenness to connect with retinol's attractive nature as an anti-aging molecule.

Clinical study conducted with VitaGuard® A on its effectiveness as an anti-aging molecule

In a randomized, full-face, double-blind clinical study on Chinese volunteers, VitaGuard® A as a cream was evaluated at 2% (equivalent to 0.1% retinol) on its effectiveness as an anti-aging molecule compared to non-encapsulated retinol at 0.1%. The results concluded that VitaGuard® A significantly showed an anti-wrinkle effect on forehead wrinkle appearance compared to baseline (D0). After 8 weeks, forehead wrinkle volume was reduced by 37% ($p<0.01$). While assessing skin elasticity improvement, compared to baseline, VitaGuard® A showed significant increase in skin elasticity vs D0 (+16%, $p<0.001$). Moreover, skin tone evenness was notably improved, showing a variation of 15% compared to the baseline measurements obtained ($p<0.001$). All these parameters were found to be directionally better versus the same formulation containing non-encapsulated retinol at the same dose of 0.1%.

The development of VitaGuard® A highlights BASF's commitment to addressing customers' needs for the ease of use of retinol, while delivering notable anti-aging effects. Furthermore, it is an example of how the company's Personal Care business is addressing future challenges. Sustainability, digitalization, innovation and new approaches to working together are the key cornerstones to Care 360° – Solutions for Sustainable Life.

Source :BASF

FARMHOUSE FRESH® CELEBRATES 20 YEARS OF SKINCARE WITH PURTY, PURPOSE, AND NEW TRANSFORMATIVE LAUNCHES

MCKINNEY, Texas, Feb. 14, 2025 / PRNewswire/ -- FarmHouse Fresh®, the award-winning skincare brand beloved for its farm-to-table spa treatments, fresh house-grown botanical extracts and animal rescue mission, is celebrating 20 years of skincare transformations. To mark the milestone, the brand launched 5 new luxurious products, a year full of celebrations, and a moving new commercial, The Great Beauty. This cinematic piece features a custom cover of John Denver's Take Me Home Country Roads sung by a Billboard #1 songwriter Julia Ross whose soulful vocals combine with VFX to follow a donkey's heartwarming journey to the Sanctuary–highlighting FarmHouse Fresh®'s mission: purity, purpose and compassion. It can be viewed here.

FarmHouse Fresh®'s five new products celebrate 20 years caring for generations of customers' skin. This collection (available in both professional size for spa treatments + retail size) is available in spas & stores now, with release dates to consumers throughout spring:

- **Golden Moments 2-Piece Set ($62 MSRP, $72 value)** – Features new Golden Gleam™ Illuminating Peptide Serum + top-selling Golden Moon Dip® Facial Peptide Mousse – both deliver a stunning golden glow while treating skin to a cocktail of rejuvenation. (Launches 4/2 to consumers).

- **Cactus Comfort™ Barrier Cream ($52 MSRP)** – A plush, milky water cream that quickly improves the overall look of complexions, by improving skin's natural barrier through ceramides & firming peptides. Accepted by the National Eczema Association. In just 14 days in consumer perception studies, 3 out of 4 agreed skin looks improved – healthier, smoother, soft & supple. (Launches 2/19 to consumers).

- **Cactus CloudSilk™ Vegan Collagen Multi-Peptide Serum ($60 MSRP)** – A lightweight instantly silky serum with vegan marine collagen and a 6-peptide complex that had 90% of users in consumer perception studies agreeing skin looks improved & feels healthier, softer and more supple. This serum helps to visibly firm, smooth and plump skin. (Launches 2/19 to consumers).
- **Cactus Pear Gel Cleanser ($34 MSRP)** – A refreshing gel cleanser that transforms into a rich, foamy lather that leaves your complexion feeling clean, soft and replenished. Infused with probiotic coconut cleansers, hydrating hyaluronic acid and nutrient-rich cactus pear seed oil. (Launches 2/19 to consumers).

- **Plump Up Pretty™ Peptide Lip Treatment (Blush Tint) ($28 MSRP)** –This rich, long-lasting lip treatment enhances the look of your pout by up to 40% with a powerful peptide complex that visibly plumps and smooths, delivering a natural blush tint without the tingle. (Launched 1/22 to consumers).

"For 20 years, with each jar and bottle, our customers have enjoyed fresh-grown professional spa-level care for their skin, while helping us rescue neglected animals. It's a true celebration of combined passions," says Shannon McLinden, Founder and CEO of FarmHouse Fresh®.

Source : FarmHouse Fresh

SONGWON PRESENTS ADVANCED COATINGS STABILIZERS AT ECS 2025

- Coatings stabilizers portfolio expanded
- Enhanced global presence
- Strong local customer support
- Secure supply through global manufacturing

Ulsan, South Korea – February 12, 2025 – Songwon Industrial Co., Ltd., one of the largest manufacturers of polymer stabilizers in the world and a key global specialty chemicals player, will present its sustainable, high-performance coatings stabilizers at the European Coatings Show (ECS) 2025 in Nuremberg, Germany.

At the show, SONGWON will showcase its comprehensive and expanded range of additives for coatings that improve durability and protect surfaces, adhesives and sealants from the damaging effects of light and heat. Among the high-value coatings that will be on display are SONGWON's liquid hydroxyphenyl triazine (HPT) UV absorbers, specifically developed to maximize the performance, efficiency and sustainability of coatings for numerous substrates. Further highlights showcased will include SONGSORB® UV absorbers (UVAs), hindered amine light stabilizers (HALS) and SONGNOX® antioxidants (AOs). These additives were designed to meet the specific requirements of steel, wood, ceramic, plastic and composite coatings used in industries such as automotive and transportation, decoration and architectural, furniture and flooring, industrial and agricultural. Demonstrating its commitment to advancing innovation in the coatings industry, SONGWON will also be presenting its latest liquid HPT solutions, such as the SONGSORB® CS 400 series of high-performance UVAs, SONGSORB® CS AQ01 HALS and SONGSORB® CS B Blends, developed for the rapidly growing waterborne coatings segment.

Commenting, Steffen Dobberstein, Leader Business Unit Coatings at SONGWON said: "The coatings industry is a high priority for us and SONGWON has invested significant resources to support the growth of this demanding market, particularly in Europe. As the industry becomes increasingly more diverse, we are well-positioned to stay ahead of the growing complexity of demands and emerging trends thanks to our innovative product technology, advanced manufacturing and strong distribution network. Additionally, SONGWON's flexible supply chain logistics and tools offer customers a strong combination of global reach and local execution."

Our experts will be sharing their coatings expertise and the benefits of SONGWON's product and service solutions with visitors at the ECS 2025 in Hall C, Booth 3C-119.

Source : Press Release

UNIVAR SOLUTIONS CHOSEN AS EXCLUSIVE DISTRIBUTOR OF BASF'S LUQUASORB® SUPERABSORBENT POLYMERS FOR IMPROVED FLEXIBILITY AND PERFORMANCE IN INDUSTRIAL APPLICATIONS

DOWNERS GROVE, Ill., Feb. 20, 2025 /PRNewswire/ -- Univar Solutions LLC ("Univar Solutions" or "the Company"), a leading global solutions provider to users of specialty ingredients and chemicals, today announced an expanded distribution partnership with BASF Corporation ("BASF"), securing the exclusive right to serve as a distributor of LuquaSorb® Superabsorbent Polymers (SAPs) in the United States and Canada in industrial applications. This collaboration expands the availability of high-performance, non-hazardous SAP technology for a wide range of industrial applications in key market segments such as coatings, adhesives, sealants, and elastomers (CASE), energy and mining, water treatment, and environmental remediation industries.

"We are excited to collaborate with BASF to substantially broaden our product portfolio and bring the LuquaSorb® product line to our customers," said Andrew Erickson, vice president of product management for Univar Solutions. "LuquaSorb® is a valuable addition to our offerings and will allow us to better serve the evolving needs of our customers. This agreement leverages the strengths of our distribution network and BASF's cutting-edge technology, ultimately benefiting our customers by providing them with greater access to this high-performance product line and the technical expertise needed to successfully integrate it into their operations. BASF's reputation for quality and goals on sustainability complement our own, and together we can bring this solution to customers facing challenges in liquid

management."

LuquaSorb® SAPs are non-hazardous and exceptionally efficient, boasting the capacity to absorb and retain up to 500 times their weight in liquid. This absorption power makes them ideal for a multitude of applications across diverse sectors, offering a practical and environmentally conscious solution to various liquid management challenges. The LuquaSorb® line's wide array of applications includes hydro-swelling capabilities for sealing and protection of underground cables, and as an internal curing agent for concrete in CASE; solidification of drilling fluids and mine tailings remediation in energy and mining; wastewater sludge stabilization; groundwater contaminant containment in water treatment; environmental remediation; and many other industrial markets uses.

"Selecting Univar Solutions as the exclusive distributor for LuquaSorb® in the United States and Canada highlights the strength of our long-standing relationship. Univar Solutions' extensive distribution network and deep market insights make it the ideal partner to help BASF deliver our high-quality SAP solutions to a broader audience. We are confident that this expanded partnership will drive significant growth and provide substantial value to Univar Solutions' customers by offering a high-performing, versatile, and environmentally responsible superabsorbent polymer solution," remarked Dr. Michael Limbach, vice president Industrial Petrochemicals North America at BASF Corporation.
LuquaSorb® is available in three distinct grades - Q1, M1, and B1 - each designed with unique gel strengths, speeds, and capacities to ensure a broad range of applications and customization options. This versatility enables precise tailoring to meet specific requirements across different markets. Discover how Univar Solutions' sales and technical experts, along with our specialized Solution Centers focused on industrial applications, can assist you in selecting the ideal LuquaSorb® variant for your unique needs.

Source : prnewswire

LYONDELLBASELL TAKES ANOTHER STEP TOWARD ENERGY TRANSITION WITH NEW POWER AGREEMENTS

Houston/Rotterdam, Jan. 29, 2025 (GLOBE NEWSWIRE) -- LyondellBasell (LYB), a leader in the global chemical industry, announced today the signing of two significant power purchase agreements (PPAs) in Europe, further supporting its commitment to reduce greenhouse gas emissions. The PPAs offer LYB long-term price certainty, which helps stabilize energy costs and make renewable energy more attractive compared to fluctuating fossil fuel prices.

"Adding these long-term agreements to our portfolio supports price stability to increase the use of renewable energy in a value-accretive way," said Chris Cain, LYB senior vice president, net zero transition strategy. "Our diverse global portfolio of renewable energy not only reduces our carbon footprint but also supports our customers' ability to meet their CO2 reduction objectives."

Under the 15-year agreement with Vattenfall, LYB will secure 450 gigawatt-hours (GWh) annually of offshore wind energy to support LYB's circular and low-carbon solutions in Germany, including powering the company's MoReTec-1 plant in Wesseling. The MoReTec-1 plant is the company's first commercial-scale advanced recycling plant and is designed to recycle the amount of plastic packaging waste generated by over 1.2 million German citizens per year using LYB's proprietary technology.

LYB also signed a long-term PPA with wpd, securing 79 GWh annually of onshore wind power from the Licata project in Sicily, Italy. The 10-year agreement is expected to begin in 2026 and will help provide a reliable supply of renewable and low-carbon electricity to the region, including LYB's production site and research center in Ferrara, Italy. The LYB site is the world's largest for Ziegler-Natta catalyst development and production. The polymer manufacturing units at the Ferrara site produce polypropylene and advanced polyolefin resins used in a wide variety of applications including food packaging, medical products and automotive parts.

Both power agreements help integrate renewable energy into the grid, improving infrastructure and reliability and demonstrating the company's commitment to be a value-oriented leader throughout the industry's energy transition.

Source : LyondellBasell

DEBUT SCORES BREAKTHROUGH IN CARMINE BIOPRODUCTION AND UNVEILS PLANS TO LAUNCH THE FIRST-EVER MOLECULAR REPLICA OF THE VIBRANT RED PIGMENT

Carmine, the intense red pigment harvested from the cochineal beetle that is widely used in color cosmetics, food and textiles is now available via animal-free biomanufacturing thanks to Debut's discovery of a new class of enzyme and ability to scale production of this key ingredient to pilot scale. Debut will be biomanufacturing carmine for beauty, an industry first, soon to be followed by food and beverage applications.

SAN DIEGO, Feb. 25, 2025 / PRNewswire/ -- Debut, the biotech beauty leader, announced today that it has achieved a significant scientific breakthrough in the bioproduction of carmine, the intense red pigment that, up until now, has been derived from the cochineal beetle. Debut's biosynthetic innovation, years in the making, features both a new family of enzymes that is responsible for a key step and innovative solutions to overcoming expensive inputs during the biomanufacturing process.

"Carmine is one of the hardest molecules to innovate. After a large investment and a lot of hard work, we are very proud to have discovered the all-important missing step in creating renewable carmine that enables us to go from sugar all the way through to this prized molecule," said Joshua Britton, PhD, Founder and CEO of Debut. "Many teams have tried to biomanufacture carmine over the years with no success due to the complexity and cost of inputs. It is only through the advancement of our biotechnology, Debut's proprietary Bio2Consumer™ platform, and our differentiated capabilities in biomanufacturing that this innovation has finally come to life."

To enable the bioproduction from a renewable low-cost source, Debut has combined its patented microbial production systems with cutting-edge cell-free biomanufacturing to overcome industrial limitation and improve bioproduction by 100-fold versus previous best-in-class attempts. This necessitated that Debut discover two enzymes and improve their performance to break through a known barrier in bioproduction of carmine. These enzymes are new, and scientists have been hunting for these answers for over 15 years.

Carmine has a long history, dating back thousands of years to the Mayan and Aztec empires. An estimated 70,000 cochineal beetles are needed to produce one pound of crushed dried insect and a fifth of a pound of carminic acid, according to Smithsonian Magazine. This age-old, animal-derived ingredient is still used because, until recently, there were no eco-friendly alternatives. Synthetic replacements have not been precise color matches with the same vibrancy, stability and formulation potential of carmine. There are also concerns about synthetic equivalents. In January 2025, the FDA banned the use of synthetic Red No. 3 following claims that the additive is carcinogenic.

In contrast to these two sources, Debut's

biomanufactured carmine offers unparalleled health, safety, animal-free and environmental advantages, in addition to ensuring a consistent supply chain that is not reliant on the migration pattern of a beetle. Debut's carminic acid is more than 95% pure versus the industry average of 30% or lower. The purity of carminic acid derived from the cochineal beetle is exceedingly low, typically 10%. Biomanufactured carmine is also devoid of a specific protein found in beetle-derived carmine that is known to cause skin irritation, making it highly beneficial for beauty and food applications. Additionally, bio-carmine boasts antioxidant and anti-inflammatory properties.

"There have been several colorants that have been used as replacements to cochineal-derived carmine, but nothing beats the shade, power, stability and vibrancy of carmine in lipstick. Debut's bio-carmine is the exact same ingredient found in nature, and we can't wait to see this in beauty formulations soon," said Britton.

Debut recently completed pilot-scale bioproduction, enabling the formulation of carminic acid for beauty applications. In addition to revolutionizing the beauty industry, Debut is preparing to expand into the food and beverage market in collaboration with a world-leading partner, and active discussions are currently underway.

Source : Debut Biotechnology

PCHI 2025 : BASF'S EMULGADE® VERDE 10 MS WINS FOUNTAIN AWARD, LEADING THE FUTURE TREND OF PERSONAL CARE INDUSTRY WITH "NAVIGATE NEW SCIENCE FOR NATURE BEAUTY AND SUSTAINABLE FUTURE"

- BASF's Emulgade® Verde 10 MS honored with Fountain Award
- BASF at PCHi 2025: Booth 1C 18 , Hall 1.1, China Import and Export Fair Complex, Guangzhou
- "Navigate the New Science of Smart Cleansing" forum: showcasing BASF's breakthrough innovations in the field of personal care

Guangzhou, China – February 20, 2025 – BASF's Care Chemicals Division participates at the 2025 China International Cosmetics Personal and Homecare Ingredients Exhibition (PCHi). Under the theme "Navigate New Science for Nature Beauty and Sustainable Future," BASF presents its latest innovations to global customers and partners. During the exhibition, BASF also host the "Navigate the New Science of Smart Cleansing" forum, where it shares its research capabilities and insights into future trends, and exchanges ideas with industry experts and audiences.

Emulgade® Verde 10 MS wins the 2025 Fountain Award in emulsifying / stabilizing category

Emulgade Verde 10 MS is a naturally derived oil-in-water emulsifier developed by BASF with a focus on sustainability. Whether used as the primary or as co-emulsifier, it provides robust and stable emulsifying performance. It supports a wide range of innovative formulations and is suitable for skincare, sun care, and rinse-off products. Clinical tests confirm its mildness and compatibility with sensitive skin. It is also microbiome-friendly, ensuring both performance and skin comfort.

"We are grateful for the recognition of Emulgade Verde 10 MS by the judging panel," said Renata Oki, Vice President, Personal Care Solutions, Care Chemicals Asia Pacific, BASF. "This is not only a recognition of our team's relentless efforts and innovation but also of our commitment to green and sustainable development. In the future, BASF will continue to uphold this commitment, continuously explore, and lead the industry towards a greener, healthier, and more sustainable future."

The "Navigate the New Science of Smart Cleansing" forum held concurrently attracts many industry experts and audiences. At the forum, BASF scientists introduce the company's scientific and technological platforms in detail, showcase BASF's latest research achievements in intelligent care, and introduce BASF's roadmap in lowering product carbon footprints to achieve net-zero greenhouse gas emissions.

At the exhibition, BASF not only showcases its innovative achievements in the personal care field but also conveys the concept of "Navigate New Science for Nature Beauty and Sustainable Future," promoting the seamless integration of beauty and sustainability through the power of science, and providing more high-quality, innovative products and solutions for the personal care industry.

Source : BASF

Indias Manufacturing Sector Showing Steady Growth Amidst Challenges and Investment Optimism

Vinodhini Harish

Introduction:

The Indian manufacturing sector continues to demonstrate resilience and steady growth with 83% of manufacturers reporting stable or increased production levels, as per the latest FICCI Quarterly Survey on Manufacturing (QSM) for Q3 2024-2025. This positive trend is driven by robust domestic demand, rising order volumes and a strong investment outlook. The industry also faces persistent challenges such as rising material costs, higher interest rates, and regulatory complexities, however, the manufacturers are optimistic and involved in future expansion and sustainability initiatives.

How are the manufacturing performance and economic indicators:

The average capacity utilization in the manufacturing sector is at 75% reflecting sustained industrial activity. Amidst global economic fluctuations about 42% of the manufacturers have planned to invest in capacity expansion within the next six months, aligning with the government expectations for private sector investment to drive GDP growth which is projected at 6/4% for FY 2024-2025.

About 83% of the manufacturers have reported their stable or increased production levels during the survey, which was at 73% last year. These respondents are expected to increase their order volumes for Q3 2024-2025 and this indicates strong market demand. About 42% of firms are expecting to expand their manufacturing capacities and 35% of the companies are working to expand their workforce.

75% of the manufacturers are anticipating higher or stable inventory levels in Q3 2024-2025 about 65% of the manufacturers have experienced export growth in Q2 and about 70% of them are expecting higher exports compared to the previous year.

Apart from expansion and production growth, the survey highlights key concepts such as sustainability and decarbonization. The leading market players have realized the emergency of emission reductions and this fact is revealed in the survey, that about 42% of the industry leaders are committed to decarbonizing their haulage fleet by 2026. The mining sector is transforming with 67% of the mining leaders involved with their 2030 sustainability targets and about 53% of them are planning significant operational changes to support decarbonization.

What are the investment trends and initiatives?

Electrification of industrial fleets:

The manufacturing sector has realized that the transportation sector is contributing the most to the greenhouse gas emissions and the manufacturers are prioritizing the electrification of fleets.

ABB's recent report shows that about 42% of respondents are aiming to decarbonize their haulage fleets by 2026

68% of the companies are expecting to electrify at least 25% of their fleets by 2030 to curb emissions.

The shift aligns with the governmental policies which promote electric mobility, renewable energy and emission reduction initiatives such as Faster Adoption and Manufacturing of Electric Vehicles (FAME) and Production-Linked Incentive schemes.

The survey examined the major sectors of the manufacturing department to understand their contribution to the economy, production levels, investment trends and market outlook. They have made a comprehensive analysis of the country's manufacturing sector focusing on the performance, challenges and growth trends.

The major sectors assessed in the

survey include:

Automotive and auto components: The sector includes vehicle manufacturing and component production which plays a crucial role in the country's industrial growth. It is driven by domestic demand, exports and governmental policies such as Faster Adoption and Manufacturing of Electric vehicles (FAME) and Production-Linked Incentive (PLI) schemes.

Capital goods: The sector includes machinery and equipment used in industrial production. The growth of the segment is often an indicator of overall economic expansion and infrastructure development.

Chemicals, fertilizers and pharmaceuticals: this critical sector serves agriculture, healthcare, and industrial applications and it is influenced by raw material availability, global demand and regulatory policies. India is a leading producer of generic medicines and the pharmaceutical sector is expanding due to increased R&D investments.

Electronics and Electricals: The sector involves consumer electronics, semi-conductors, and electrical equipment and it is the major focus of the country – Make in India and Atmanirbhar Bharat Initiatives with the government promoting domestic manufacturing through PLI initiatives and support for semiconductor production.

Machine tools – this includes precision machinery and automated tools that are used in varied industries. The investments in automation and industry 4.0 technologies are driving growth in the sector and thereby improving productivity and efficiency.

Metals and Metal products: The sector includes steel, aluminum and other metal production that are utilized in construction, automotive and industrial manufacturing. India's infrastructure expansion and export demand are boosting production.

Textiles, apparel, and technical textiles: The textiles and apparel industry is considered one of the largest industries and the manufacturing sector benefits from strong domestic consumption and export demand.

Miscellaneous manufacturing sectors: This category involves diverse industrial segments such as consumer goods, defence manufacturing and renewable energy components. The sector contributes primarily to the employment and GDP growth. The survey collected responses from large enterprises and small & medium enterprises across these sectors. These companies collectively represent an annual turnover of more than INR 4.7 lakh crore which indicates the sector's economic significance. The findings offer key insights into production levels, investment patterns and employment trends. Thereby helping policymakers and industry leaders make informed decisions.

Economic impact and survey scope:

The survey was collected from several large enterprises, small and medium across myriad sectors. The companies collectively represent an annual turnover of more than INR 4.7 lakh crore which indicates economic significance and the findings have helped in understanding the production levels, investment patterns and employment trends. These findings have been a great insight for policymakers, industry leaders and industry experts to make informed decisions.

Take away:

The FICCI QSM report highlighted diverse growth patterns, challenges and investment trends in the Indian manufacturing sector. The study comprises eight key industries and the survey has provided the experts with a holistic view of industrial expansion, and policy impact and learn about future opportunities. Therefore the study helped in aligning with broader economic goals under schemes such as Make in India and Atmairbhar Bharat Initiatives. Overall Indian manufacturing sector is poised for robust growth due to support from strong domestic demand, increasing investments, and sustainability initiatives.

Building a Sustainable Future L AND Ts INR 48000 Crore Green Ammonia Investment at Kandla Port

Vinodhini Harish

Introduction:

Imagine a future where India stands at the forefront of the green energy revolution. In the heart of Gujarat, at Kandla port, Larsen & Toubro (L&T) is laying the foundation for this vision with a courageous yet ambitious INR 48,000 crore investment. The goal is to build six state-of-the-art green ammonia manufacturing units that will not only fuel the country's clean energy transition but also make it a key player in the global green ammonia market. The journey ahead is mapped out in six phases and the first financial decision is expected to

be done within a year this could change the country's clean energy landscape while cementing L&T's status as a global leader in green ammonia exports. In this article, we have explored L&T's green ammonia mission and how it is a bold step toward a cleaner and greener future. Let's dive in.

Breaking news: massive scale, technological advancements and potential impact of L&T:

Larsen & Toubro's (L&T) massive ₹48,000 crore ($5.8 billion) investment in green ammonia production at Kandla is generating huge excitement and cheers in the market. The massive scale, technological advancements, and potential impact on the global decarbonization efforts are the reasons behind the excitement. The idea of the generation of Green ammonia via water electrolysis powered by renewable energy to reduce industrial carbon emissions is well appreciated in the industry. Especially the sectors like fertilizers, shipping, and energy storage are receiving the news with great appreciation.

The strategic location, Kandla's Deendayal port is considered as the most ideal location for exports, existing infrastructure, and proximity to renewable energy sources. Furthermore, the port is one of the country's busiest and provides seamless global trade connectivity and it is considered the prime location for green ammonia exports. The additional 500-acre land acquired by L&T in 2022 offers sufficient space for phased development, ensuring smooth scalability.

L&T's collaboration with French hydrogen production specialist McPhy Energy to produce alkaline-based electrolyzers that are crucial for renewable hydrogen production. The technological partnership ensures efficiency, sustainability and cost-effectiveness in green ammonia production.

The investment of INR 48,000 crore($6.4 billion) investment is exciting to the industry as the initiative is one of the largest clean energy projects. Their production units with a capacity of 300 kilotonnes per annum significantly boost the country's renewable energy and industrial decarbonization goals.

What are the efficient green ammonia production methods that are ruling the industry?

The green ammonia sector is racing to innovate because of the reducing costs, increasing efficiency and expansion in the applications. Nations are pushing for carbon neutrality and creating breakthroughs in production methods, these are defining the future of sustainable ammonia and hydrogen economies.

Industry players are carrying out three important strategies or methods to improve energy efficiency and reduce energy requirements. They carry out these strategies through advanced electrolyzers such as PEM, and SOEC and they optimize catalysts and deploy hybrid production models by integrating renewable energy with grid support.

The industry needs large-scale plants with continuous operation capabilities and they bring in innovation such as modular reactor designs and automation in ammonia synthesis that enables higher production output with lower energy consumption.

Other strategies such as dynamic load management help in balancing the fluctuations in renewable power and efficient batteries and hydrogen storage

solutions to ensure 24/7 production. The plasma-based ammonia synthesis helps in a low-energy alternative to electrolysis. The government and private players are funding research to develop next-gen electrolyzers that are more durable and built with lower-cost materials, and the funds are also utilized to try out alternative synthesis routes such as photochemical and biological pathways. The funds are also utilized for predictive maintenance, real-time monitoring and so on.

Some challenges are considered stumbling blocks in the growth of the green ammonia market. For instance, in countries like Australia, several renewable hydrogen and ammonia projects have been delayed or cancelled due to some economic constraints and high production costs. Meanwhile, the competition between blue hydrogen and green hydrogen continues.

Some of the prominent growth projections:

In late 2024, it is observed that China is positioning itself as a major player in green ammonia exports, as their large-scale projects are under development. For instance, Envision Energy is constructing its 20,000-ton-per-year green ammonia plant in inner Mongolia which is expected to scale up to 300,000 tons per year. Several state-owned firms such as China State Shipbuilding (CSSC) and China Energy Engineering have announced multi-billion dollar projects using renewable energy sources such as wind and solar.

The global green ammonia market was valued at USD 320.2 million in 2023 and is expected to grow with an annual growth rate of over 66.3% by 2032. This rapid growth is due to continuous advancements in electrolyzer technologies and the integration of renewable energy sources that are making green ammonia commercially viable.

There are other news and instances that are amping up the growth scale. Avaada and Casale's collaboration in India is one of the notable partnerships. Avaada and Casale have recently partnered to develop the green ammonia facility in Gopalapur, India and the collaboration is considered a major step in the transition of India's clean energy process.

The journey ahead is mapped out in six phases spanning the next decade, with the first financial investment decision expected within a year. But once complete, this project could redefine the country's clean energy landscape, cementing L&T's status as a global leader in green ammonia exports.

From a bustling port in Gujarat to markets worldwide, L&T's green ammonia mission is not just a business move, it is a bold step towards a cleaner and greener future.

It's time to get deeper into the subject!

Green ammonia is a critical component of industrial decarbonization as it is produced via water electrolysis which is powered by renewable energy. Moreover producing and exporting green ammonia overseas is in the talks of many worldwide off-takers. Therefore observing the growing demand and potential, L&T has purchased 500 acres at Kandla port to develop it into a green ammonia export hub. Currently, the company has started the front-end engineering design, which is the FEED process done after feasibility studies and before the full-scale construction, for the project and now is seeking green power supply approvals. FEED process helps in finalizing the design, technical specifications and cost estimates of the project.

L&T has partnered with McPhy Energy (France) to manufacture alkaline-based electrolyzers in India. These electrolytes are critical for splitting water into hydrogen and oxygen, which enables green hydrogen production and then it is converted into green ammonia.

Alkaline electrolysis is a mature and cost-effective method for large-scale hydrogen production and L&T has chosen this effective method for green ammonia production, with respect to the Kandla port, the support from the Indian government as a part of the National Green Hydrogen Mission helps in the green hydrogen and ammonia production. Also, Gujarat has strong solar and wind energy potential that ensures a stable renewable power supply for the project.

The project highlights its integration with cutting-edge technology, global partnerships and strategic location advantages.

Market analysis of green ammonia and India's role in production and innovation:

The global green ammonia market is experiencing significant growth that is driven by increasing demand for sustainable fertilizers, hydrogen storage and clean energy applications. There are several governmental policies that are promoting decarbonization and creating a shift towards renewable energy sources.

The industries are also moving toward green ammonia as a clean alternative to conventional ammonia that is produced using fossil fuels. Green ammonia can be used as an energy carrier for transporting and storing hydrogen.

Green ammonia can be used as an energy carrier for transporting and storing hydrogen and the global agricultural industry is increasingly adopting sustainable fertilizers where green ammonia plays a critical role in reducing carbon emissions in farming.

India is aiming to become a global hub

for green hydrogen export as it can serve as a critical derivative for export and domestic use. Therefore India should focus on the production of Green ammonia. India is one of the largest consumers of ammonia for fertilizers therefore producing green ammonia domestically reduces the country's dependency on imports. With abundant solar and wind resources the country is capable of producing green hydrogen and the primary feedstock for green ammonia.

The Indian government are announcing multiple initiatives under the National Green Hydrogen Mission to promote sustainable industrial practices and countries like Japan and the EU are looking to import green ammonia, therefore these factors can be considered opportunities for the country.

Take away:

This transformative step of L&T's green ammonia initiative at Kandla port is great news and the news is truly inspiring. With an investment of INR 48,000 crore, the project will boost the country's green hydrogen and ammonia production which reduces the carbon emissions and enhances the country's position as a global supplier of sustainable fuels. Also, the partnership with McPhy Energy for electrolyzer technology coupled with renewable power integration ensures a low-carbon and competitive production process. The world is shifting towards decarbonization, this L&T's ambitious vision is now reshaping the green ammonia market and accelerating India's transition to a hydrogen-powered future.

Cosmo First Reports its Q3 FY24-25 Results

In Rs. Crores	Q3 FY25	Q3 FY24	Q2 FY25	YTD Dec-24	YTD Dec-23
Net Revenue	701	625	759	2149	1946
EBITDA	86	56	107	277	184
EBITDA %	12.30%	9.00%	14.10%	12.90%	9.40%
PBT	36	10	57	131	55
PAT	30	11	46	106	47
EPS (In Rs.) (Not Annualized)	11	4	18	41	18

New Delhi, 11th February 2025: Cosmo First Limited today declared its financial results for the quarter ended Dec 2024.

The improvement in EBIDTA from Q3, FY24 is backed by higher specialty sales, enhanced volume and better BOPP and BOPET film margins. The Company has reached speciality sales of 73% of total volume in Q3, FY25 and 71% in Dec 2024 YTD basis as against 64% in FY24.

BOPET vertical (about 15% of Company's sales for Q3, FY25) has also witnessed better margins and posted EBITDA in mid-teens during Q3, FY25.

The Net Revenue and margins are lower in Q3'FY25 from Q2'FY25 due to temporary break-down in one of the lines causing volume loss of 5%. BOPP Film margin has also witnessed pressure for few weeks in Q3, FY25 with some capacity commissioning in domestic industry though recovered due to strong demand. The BOPP base film margins are expected to remain subdued in FY26 due to expected capacity addition in the domestic industry. Q2'FY25 also had one time income of 9 crores due to property sales and tax incentives.

The Specialty Chemical subsidiary is advancing well to achieve high teens EBITDA and 30%+ ROCE in FY25.

Ms. Yamini Kumar (Jaipuria) has been appointed as Whole time Director (Corporate Strategy, ESG & CSR) for a period of 5 years. The appointment will take effect from the date of allotment of DIN by Ministry of Corporate Affairs.

Commenting on Company's performance Mr. Pankaj Poddar, Group CEO, Cosmo First Ltd said "For Film business, the Company's focus remains on specialty film, expanding in international geographies, faster scaling up of new capacities and cost rationalization opportunities. Growth projects (BOPP Film line, CPP line and Sun-control Film) are expected to add to the topline and bottom-line from FY26. In Zigly, we have launched multiple Private labels and enhanced our Vet care services which favourably impacted topline and margins in Q3. The Rigid Packaging vertical shall start making positive EBIDTA from FY26."

Source : Press Release

India's First Hydrogen Train Sustainable Rail Transport for a Greener Future

Major Goals for Developing Countries like India. India Is Aiming to Achieve Net-Zero Emissions by 2070 and This Initiative of Introducing Hydrogen Powered Trains in Indian Railways Closely Aligns with This Long Term Goal.

The First Hydrogen-Powered Train in Indian Railways Completed Its Final Trial Run Between Jind and Sonipat Stations. The Hydrogen-Powered Train Is Designed to Carry 2,638 Passengers in Eight Coaches Includes Three Additional Coaches for Hydrogen Storage and Is Powered up to Reach Maximum Speed of 110 Km/H, This Has Been Developed at an Estimated Cost of Inr800 Million.

India Stands in 5th Place to Operate Hydrogen-Powered Trains. These Hydrogen Fuel Trains Are a Sustainable Alternative to Diesel as They Use Fuel Cells to Produce Electricity from Hydrogen and Oxygen, Emitting Only Water Vapour.

Vinodhini Harish

Introduction:

Can You Imagine a Train That Runs Swiftly and Emits Only Vapour Instead of Think, Polluting Diesel Fumes? Does It Sound like a Futuristic Dream? Well, It's Already Happening in India! Can't Believe What You Just Read? In This Article, We Have Explored One of the Finest Revolutions in India, Which Is Creating a Boom in Indian Railways. India Is Aiming for Net-Zero Emissions by 2070 and It's Old News, the Introduction of Hydrogen-Powered Trains Marks a Significant Step Towards a Cleaner and Greener Future. You Might Come up with Questions like, How Does a Train Run on Hydrogen? Can It Match the Efficiency of Conventional Diesel Locomotives? What Can India Learn from the Pioneers? We Have Covered It All for You in This Short Read. Please Take Time to Read the Article and Let's Begin!

Why Are There Many Expectations for Hydrogen-Powered Trains in India?

Decarbonizing the Railway Sector and Reducing Air Pollution Are Some of the Major Goals for Developing Countries like India. India Is Aiming to Achieve Net-Zero Emissions by 2070 and This Initiative of Introducing Hydrogen Powered Trains in Indian Railways Closely Aligns with This Long Term Goal.

They Offer Reduced Noise, and Zero Emissions and Can Be Operated on Existing Railway Lines Without the Requirement of a Costly Electrification Setup. This Revolutionary Mode of Transportation Utilizes Hydrogen as a Clean and Sustainable Fuel Source to Produce the Electricity Required to Power up the Electric Motors in the Train. The Electricity Is Generated by Combining Hydrogen with Oxygen in a Fuel Cell, Which Results in Zero Emissions or It Emits Only Water Vapour as a Byproduct.

How Do Hydrogen Trains Work?

The Core of the Hydrogen Train Is the Fuel Cell, Where the Hydrogen and Oxygen Are Combined to Generate Electricity.

The Electricity Generated by the Fuel Cells Drives the Electric Motors in the Train, Propelling the Wheels. For Power Management, Especially During Power Demands Scenarios Such as Acceleration, and Hill-Climbing, the Hydrogen Train Makes Use of Energy Storage Systems Such as Batteries, and Supercapacitors to Store Excess Electricity.

Since These Hydrogen Trains Emit Only Water Vapour, They Are Tagged as Zero Emissions Trains.

India Is Following the Path of Countries That Have Successfully Deployed Hydrogen-Powered Trains.

Germany: Germany Created History in 2018 with the Launch of Coradia Ilint, Developed by Alstom. This World's First Hydrogen Rail Transport Has Marked Its Beginning in Commercial Operations, and Ever Since the Country Has Significantly Expanded Its Hydrogen Fleet in Lower Saxony and Other Regions.

Siemens Has Introduced the Micro plus H Hydrogen-Powered Train in Berlin, Thereby Showcasing Advancements in Alternative Fuel Technology. The Rail Industry Across Europe Is Witnessing a Shift Towards Battery and Hydrogen-Powered Trains with Companies like Stadler and Skoda's Innovative Models. Siemens' Hydrogen Strategy Is to Work with Partners to Build Refuelling Stations and Hydrogen Production Plants. They Also Focus on Obtaining Green Hydrogen That Is Produced from Renewable Energy Sources to Ensure Sustainability. Siemens Is Also Involved in Generating Hydrogen Efficiently Using Electrolysis Technology for Transport Applications.

Siemens Has Partnered with Companies like Everfuel, Air Liquide, Ballard Power Systems, Deutsche Bahn Energie, and Others to Make This Revolution Happen.

Air Liquide Is a Significant Player in Hydrogen Productionand Refuelling Solutions as They Have Joined Hands with Siemens Energy to Develop Large-Scale Renewable Hydrogen Electrolyzers. Their Joint Venture, Headquartered in Berlin Is Expected to Produce Industrial-Scale Proton Exchange Membrane (Pem) Electrolyzers, This Helps in Generating Competitive Renewable Hydrogen for Varied Applications Including Rail Transport. Air Liquide Is Also Involved in Hydrogen Storage and Distribution Technologies Thereby Making It Easier for Rail Networks to Adopt Hydrogen-Powered Trains.

Ballard Power Systems: Ballard Power Systems Is a Leading Manufacturer of Hydrogen Fuel Cells and They Are Known for Their Durable and Efficient Fuel Cells That Enable These Hydrogen-Powered Trains to Run on Hydrogen and Produce Only Water as a by-Product. These Supreme-Quality Fuel Cells Ensure Reliable Performance in Railway Operations.

China: China Unveiled the World's Fastest Hydrogen-Powered Train in 2023, Which Was Developed by Crrc Changchun Railway Vehicles. The Train Can Reach Speeds of About 160 Km/Hm Making It a Major Technological Leap. The Hydrogen Rail in China Is Considered a Part of the Country's Broader Push Towards Green Transportation and Clean Neutrality. Now, Crrc Changchun Railway Vehicles Is a Primary Developer of Hydrogen-Powered Trains That Focuses Only on the Design, Engineering, and Integration of Hydrogen Fuel Cell Technologies. Additionally, They Also Ensure That the Train Meets Safety and Efficiency Standards That Incorporate Features Such as Explosion-Proof Fuel Cells and Intelligent Monitoring Systems.

The Advanced Manufacturing Capabilities, Extensive High-Speed Rail Network, and State Investments in Hydrogen-Fuel Cell Technology Are Some of the Strong Support for Hydrogen-Powered Rail Systems in China.

In Addition to These Companies, Collaboration with Ningdong Hydrogen Locomotive Helps in the System Integration and Ensures Compatibility with Existing Rail Infrastructure. In Addition to These, the Trains Feature Advanced Fireproofing, Heat Insulation, Independent Ventilation System for the Hydrogen Storage Area to Maintain Safety Offering the Best Support for the Development of Hydrogen Locomotives in China.

France: France Has Been at the Forefront of Hydrogen Rail Innovation, and Alstom Has Not Only Pioneered the Coradia Ilint but Is Also Expanding the Production of Hydrogen-Powered Trains Across Europe. Alstom Is Working Towards Bringing in Hybrid Models That Are Capable of Running Both on Hydrogen and Electricity, Thereby Making Them More Versatile for Different Rail Infrastructures. The Company's Expertise in the Sector Has Made It a Leading Supplier of Hydrogen Trains to Countries like Germany and Italy.

Now Coradia Ilint Is the World's First Passenger Train That Is Powered by Hydrogen Fuel Cell, Designed and Manufactured by Alstom. Alstom Is Known for Its Sustainable Mobility Solutions. The Train Generates Electrical Energy Through Hydrogen Fuel Cells, Producing Only Water Vapour and Is Capable of Travelling up to 1000 Km on a Single Hydrogen Refill.

The Train Is Designed for Non-Electrified Tracks and Is Thus Ideal for Regions Where Electrification Is Not Feasible.

Coradia Ilint Is Currently in Operation in Germany and Has Potentially Replaced Diesel Trains in Lower Saxony. It Has Also Been Tested Successfully in Austria, and the Netherlands.

What Are Some Lessons Indian Railways Can Learn from These Pioneered Countries?

Germany's Approach:

Germany Has Dedicated Hydrogen Refuelling Stations for Trains and the Country Ensures They Use Only Green Hydrogen. India Can Also Work on Adopting a Similar Model by Building or Investing to Develop Electrolysis Plants near Railway Hubs That Are Powered by Solar and Wind Energy. Germany Partnered with Companies That Specialize in Green Hydrogen Production Such as Everfuel, and Air Liquide to Ensure Sustainable Fuel Supply. India Should Also Look for Collaborations and Welcome Companies That Are Thriving with Similar Goals.

China's Approach- Investments in High-Speed and Efficient Hydrogen Train Development:

China Has Developed the World's Fastest Hydrogen Train Which Is Capable of Reaching 160 Km/H, by Collaborating with Crrc Changchun Railway Vehicles. The Integration of Hydrogen Fuel Cells with Existing High-Speed Rail Networks Made Seamless Operations Possible. Similarly, Indian Railways Can Also Collaborate with Domestic Manufacturers and Research Institutions to Develop Indigenous Hydrogen Locomotives That Are Suited to the Local Conditions. Although Acquiring Raw Materials and Developing Strategies Is Important, Maintaining Efficiency and Improving or Modernizing Further Is Also a Key Aspect of the Development. Therefore Indian Railways Must Learn to Integrate Hydrogen Technologies with Its Extensive High-Speed Network to Help the Country Modernize Their Rail Transport System.

France: India Has over 30,000km of Non-Electrified Rail Tracks That Are Meant for Diesel Locomotives, but France's Coradia iLint Was Specifically Designed to Replace the Diesel Trains, Therefore India Must Learn to Deploy Hydrogen Trains That Run on Non-Electrified Routes to Reduce the Dependency on Diesel While Utilizing the Current Infrastructure or Facilities.

France Was Able to Capitalize on Their Localized Hydrogen Fuel Production to Lower Their Costs Further. In Addition to These Strategies, the Indian Railway System Can Also Think About Establishing Hydrogen Production and Refuelling Hubs at Strategic Railway Junctions.

Invest in Developing Hydrogen Refuelling Technologies That Are Similar to Alstom's Partnership with Linde for Fast Refuelling Solutions. France Has Encouraged Private Sector Investments in Hydrogen Infrastructure, They Have Also Focused on Long-Term Cost Reduction, Such as Scaling up Production of Hydrogen, Obtaining Government Subsidies and Incentives for Cleaner Energy Adoption and so on.

How Can Indian Railways Benefit? Emphasizing the Significance of the Benefits:

Can You Imagine a High-Speed Train That Travels Across Vast Rural Landscapes, Connecting Remote Towns Without the Need for Frequent Stops to Refuel? There Are Some Limitations in Traditional Electric Trains Such as They Depend on Overhead Wires or Large Battery Packs That Come with Minimal Capacity, on the Other Hand, These Hydrogen Fuel Cell Trains Are Capable of Travelling up to 1000 Kilometres Before Needing to Refuel.

After Running for 18 Hours, These Advanced Hydrogen-Powered Trains Can Refuel Themselves in Just 15-20 Minutes and Are Ready to Go Again for a Full Day's Journey! They Are Not like These Battery-Powered Trains That Need Several Hours to Recharge Before They Run Again. For Instance, Germany's Hydrogen Trains Have Refuelling Stations That Are Easily Operated and Conditioned like Gas Stations, but They Are Meant for Trains. If the Country Possesses Large-Scale Transit Systems, Then These Quick Turnarounds Are Necessary.

The Lifestyle of Commuters Is Changing, and the Economy of Countries Is Rising, Therefore These Commuters Deserve a Peaceful and Quiet Journey Without the Rumbling Noise of Diesel Engines. The Soothing Soft Hum When These Trains Glide over the Tracks Makes It More Peaceful for the Commuters. Traditional Trains Contribute to Noise Pollution Disturbing Both the Passengers and Nearby Residents, However, These Hydrogen-Powered Trains Are Ideal for Urban Environments and Developing Economic Regions.

Takeaway:

Can You Please Picture This? Indian Trains Glide Across the Country Without Polluting the Air, and They Reach Even the Rural Areas, They Are All Seamlessly Connected. The Noisy Engines Are All Replaced with Gentle Hum, All Thanks to Hydrogen Power. India Is Taking Cues from Germany's Hydrogen Strategy and Going All Green Recently. Therefore Investing in Hydrogen Trains Is Not Just About Cutting down Emissions but Creating a More Sustainable, Efficient and Quieter Transport System for the Future.

Shaping the Future: LYB Brings Innovation to Plastimagen 2025

HOUSTON, February 24, 2025 — LyondellBasell (NYSE: LYB) a leader in the global chemical industry, will exhibit at Plastimagen 2025, Mexico's premier plastics industry trade show, taking place March 11-14 at Centro Citibanamex in Mexico City.

Plastimagen brings together industry professionals, manufacturers and decision-makers to explore cutting-edge solutions in plastics technology, sustainability and manufacturing. LYB will highlight its best-in-class products shaped by innovation and backed by expertise at Booth 320, demonstrating its commitment to differentiated solutions.

Solution Highlights

Packaging: From convenience and freshness to brand identity and protection, the performance of LYB resins enable innovative packaging solutions that extend shelf life — backed by custom colors, special effects and other processing additives.

Agriculture: Whether it's greenhouse films, mulch films, agrotextiles or heavy agricultural equipment the durability of LYB polymers enable differential solutions that cultivate efficiency and optimize growth — marked by performance, custom aesthetics and weatherability.

Transportation: From charging infrastructure and EV battery components to bumpers, instrument panels and under-the-hood applications, the economics of LYB polymers create innovative design concepts that enhance passenger safety, comfort and quality. Integrated with lightweight materials, wide temperature ranges and custom colors, these solutions enhance all drives.

Consumer Goods: Whether for luggage, golf carts or coolers, the versatility of LYB polymers enable innovative designs that enhance durability, functionality and aesthetic appeal—no matter the purpose or setting. These solutions are led by lightweight, corrosion-resistant, flame-resistant, high-impact materials and more.

"As the plastics industry continues to evolve, LYB remains at the forefront of innovation, providing solutions that meet the growing demand for efficiency and performance. Our legacy is built on 70-years of game-changing innovation. We put this knowledge to work for our customers," said LyondellBasell Gustavo Perez Vice President Advanced Polymer Solutions, Americas. "We are excited to connect with industry leaders at Plastimagen and showcase how our products drive value and ensure you are always one step ahead."

Source : LyondellBasell

LG Chem Accelerates Commercial Production of 100% Plant-Based Acrylic Acid

- LG Chem has launched prototype production of 100% bio-acrylic acid, which has received USDA Certified Biobased Product (BIOPREFERRED®) label.
- The product is derived from 3HP made through a microbial fermentation process, offering the same properties as conventional acrylic acid and providing a sustainable solution for cosmetics and diaper raw materials
- With an initial production capacity of 100 metric tons per year, LG Chem plans to scale up production if demand for eco-friendly raw materials increases

Seoul, February 13, 2025 – LG Chem is entering the global market with eco-friendly raw materials derived from vegetable oils. The company announced

on the 13th that it will commence the production of bio-acrylic acid in the second quarter of this year. Production capacity shall ramp up to 100 metric tons (MT) of prototype annually.

Bio-acrylic acid can be applied to various materials, including cosmetic ingredients that directly contact the skin, super absorbent polymers (SAP) for diapers, adhesives for electronics and vehicles, coating materials, and eco-friendly paints. Although attempts to develop bio-acrylic acid technology have been made worldwide, none have reached commercialization until now.
LG Chem's bio-acrylic acid is made from 3-Hydroxypropionic acid (3HP), produced by microbial fermentation of plant-based raw materials. The product retains the same molecular structure and properties as conventional acrylic acid while being entirely plant-based.

LG Chem developed its 3HP strain and fermentation technology in-house, earning the United States Department of Agriculture (USDA) Certified Biobased Product label, confirming it as 100% bio-based last year.

Starting with prototype production, the company plans to actively promote the product to sustainability-driven companies in North America and Europe. The cosmetics industry, which

increasingly demands plant-based and naturally derived ingredients without compromising functionality, is expected to be a key market for bio-acrylic acid.

LG Chem plans to operate a customized bio-acrylic acid production system that can respond immediately to customer needs and is considering expanding production facilities if market demand increases.

"We expect bio-acrylic acid to be an innovative product that meets the sustainability needs of our customers and the market. We will continue leading the development of eco-friendly technologies," said Song Byung-Keun, Senior Vice President and Head of Acrylates/SAP Business Unit at LG Chem.

Source : LG Chem

Green Science Alliance Made Furniture Composed of Plant Based Biomass Biodegradable Resin with 3D Printer

KAWANISHI-CITY, Japan, Feb. 25, 2025 /PRNewswire/ -- Environmental problems such as climate change, global warming, deforestation, extinction of species, water shortage etc. due to explosion of human population are becoming increasingly severe worldwide. Plastic pollution is also a severe environmental problem which cause adverse effects, especially nanoplastics are already present in the human body as a result of plastic polluted breathing air and though our meal. For example, we are ingesting nanoplastics through drinking water with PET bottle. Recently, there are some medical studies reporting the enhanced risk of heart attack, stroke caused by nanoplastics in blood vessels. In addition, they may also possess ill effect for immune system as well as cause inflammation reaction in digestive system.

The production and usage of biodegradable plastic is slowly increasing, although greater than 90 % of plastics worldwide are still petroleum-based non-biodegradable plastics. In addition, the production of this petroleum-based non-biodegradable plastics are still increasing regardless of these plastic pollution problems. Therefore, plastic pollution is worsening each year.

On the other hand, biodegradable plastics can biodegrade and return back to nature and do not become plastic pollution although biodegradability needs to be carefully examined in various types of conditions including compost condition, soil, water, sea water etc. However, biodegradable plastics including PLA (polylactic acid), lactone-based materials are already applied for medical usage in human body.

Under this circumstances, Green Science Alliance made furniture with 3D printer with plant based biomass biodegradable resin which they develop in their company. The furniture they made with 3D printer is table, bench, shelf, lamp shade, lightning cover, flower pot and floor. Theoretically, they can make any kind of furniture and objects with their plant based biomass resin with 3D printer. They have used PLA (Poly Lactic Acid) based resin this time.

The company also set up the small exhibition space at Tokyo, Japan (1-25-5 Miyasaka Setagaya-ku, Tokyo prefecture) to display all of these plant biomass-based 3D printed furniture and products.

As next step, they are planning to decorate the furniture with their plant based vegan paint to sophisticate the design and look. They are also planning to make more furniture with cellulose based resin and organic wastes composite materials such as wood waste, seaweed waste, paper waste etc. In general, manufacturing process will be much shorter with 3D printing process and products price are expected to be cheaper than general furniture.

They keep challenging to make green sustainable furniture and products with their green materials with 3D printer manufacturing process

Source : Green Science Alliance Co., Ltd.

From Medical Advances to Eco-Friendly Packaging The Impact of Biodegradable Polymers and how are they Changing Industries

Vinodhini Harish

Introduction:

The world is grappling with plastic pollution and environmental degradation, and this rise of biodegradable polymers offers hope. The advanced materials are designed to break down into natural by-products and are emerging as viable alternatives to conventional plastics. The biodegradable polymers are revolutionizing the medical industry and enhancing sustainable packaging while addressing ecological concerns. However, some challenges hinder the widespread adoption. Therefore, in this article, we have explored how the technical advancements drive future growth and we have also discussed the intricate market dynamics, diverse applications, and innovative breakthroughs propelling the biodegradable polymer industry forward.

Market dynamics of Biodegradable polymers:

Biodegradable polymers are special plastics that break down into natural byproducts such as water, carbon dioxide, and biomass with the help of microorganisms. These polymers are environmentally friendly and considered a sustainable alternative to plastics. Bio-degradable polymers degrade with the help of various mechanisms such as hydrolysis,

enzymatic action and microbial activity, depending on chemical structure and environmental conditions.

Varied applications of biodegradable polymers in the medical field:

Biodegradable polymers are very popular in the medical field because of their ability to break down into non-toxic byproducts inside the body and this eliminates the need for surgical removal, thereby reducing the complications and enhancing the patient's comfort during their recovery period. The polymers decompose safely into natural substances such as water and carbon dioxide thereby reducing the long-term side effects. Materials such as Polylactic acid (PLA) and Polycaprolactone (PCL) are biocompatible which means they don't cause harmful immune reactions.

Due to this ability, they are widely utilized in sutures, these dissolvable sutures made of PLA and PGA gradually break down after the healing of the wounds and thereby eliminate second surgery to remove stitches. The tissue engineering scaffolds use polymers to support cell growth and thereby help in wound healing and organ regeneration. Biodegradable polymers are utilized in drug delivery systems as they slowly degrade and release medication over time. The attributes such as controlled and sustained release of drugs, reduced frequency of doses and targeted treatment, and minimizing side effects ensure applications in cancer therapy, insulin delivery and pain management.

Biodegradable polymers such as Polycaprolactone (PCL) and Polydioxanone (PDO) are utilized in bone fixation devices, stents and orthopedic screws. These screws tend to dissolve gradually as the bone heals and the bioresorbable stents are utilized in cardiovascular treatments that prevent artery blockage and degrade safely after serving their function.

Since these biodegradable polymers break down completely and naturally over time, they reduce medical waste thereby making them eco-friendly alternatives to the traditional synthetic polymers.

New launches and innovative technologies:

BDP Biodegradable plastics technology: BDP technology helps biodegradable plastics more efficiently by adding organic ingredients to conventional plastics. The additive attracts microbes in environments such as landfills and therefore speeds up the decomposition without leaving any harmful residues or microplastics. Print & Pack collaborated with a North American Biotech company and introduced BDP Biotechnology, this patented technology designed to enhance the biodegradability of plastics. The BDP consists of organic nutrients and compounds that attract microbes thereby tricking them into consuming plastics as if they were food. Once these plastics are discarded, the microbes completely break down into compost and biogas. The compost enriches the soil, while the biogas is collected and converted into natural gas.

The INVISIBLE BAG: The INVISIBLE BAG is a compostable and water-soluble bag that is made of polyvinyl alcohol and other biodegradable components, which dissolve in warm water and leave non-toxic residues behind. This is considered a sustainable alternative to conventional plastic bags.

Some challenges in implementing these technologies:

Unawareness and adoption are two primary challenges since many businesses and consumers are still unaware of these alternatives and still hesitate to switch to these alternatives due to cost and performance concerns.

Compliance with various environmental laws and certifications across different regions poses challenges.

Cost and scalability is another crucial factor that hinders the expansion of these alternatives. The production of biodegradable plastics/packaging materials is often more expensive than traditional plastics thereby making it more difficult to widespread adoption.

Performance limitations and effectiveness: Some of these biodegradable materials have shorter shelf lives and they have different mechanical properties than the conventional ones.

Despite these challenges, Print & Pack technologies contribute to the rising adoption of sustainable packaging, helping small businesses and eco-conscious brands to shift towards greener alternatives.

Factors that affect the bioplastics demand:

Crude oil prices: There has been a long-term fluctuation in crude oil prices and it significantly influences the development of bioplastics and their demand. Conventional plastics are manufactured from crude oil and their price levels are dependent on the oil price levels. Therefore, rising oil prices and associated high prices for fossil-based plastics, the demand for alternatives is rising as well.

To understand the demand for bioplastics, we must also understand what makes the demand for bioplastics go higher. The quality of the bioplastics themselves. The more bioplastic matches the quality of regular plastic, the more people will want it when the oil prices go up.

GDP growth: the economic growth of the consumers is also a crucial factor that determines the market growth of

bioplastics. For instance, when people have more money, they tend to buy more plastic products including bioplastics. Studies proved that incomes rise and people are more willing to pay for environmentally friendly products. Therefore how the public views the products and concerns are crucial for the bioplastics market growth.

Costs: Of course! Bioplastics are made of corn starch and sugarcane, therefore a rise in the price of corn or sugar prices affects bioplastics production and there are a few global factors such as droughts, fertilizer costs, labour shortages and so on that affect bioplastics production.

Manufacturing of bioplastics is energy intensive, especially during the fermentation process. The changes in electricity, and gas prices can significantly affect the production costs. The costs involved in handling the waste produced during the manufacturing processes also come under this segment.

Political factors: Governmental taxes also impact fossil-based plastics, making bioplastics a cheaper alternative. When the government of a country imposes more tax on regular, fossil-based plastics, it will increase the demand for bio-based plastics. However broad taxes on non-recyclable plastics also can hurt the production or demand of bioplastics. For instance in India, the government has imposed restrictions on single-use plastics and encourages extended producer responsibility where the companies must manage their plastic wastes.

Likewise, the GST on plastics vs. bioplastics also helps in the production of bioplastics. Regular plastic products attract 18% of GST and biodegradable alternatives are taxed at 12%. There is a small difference that makes these bioplastics slightly more affordable but may not be enough to drive large-scale adoption.

The Indian government is looking for ways to discourage traditional plastics and benefit the manufacturers of bioplastics. If the industries are well structured, then the government could make bioplastics a preferred choice for packaging and retail.

Technological factors:

Companies are now involved in inventing ways to make bioplastics more effective. Producing bioplastics on a larger scale can lower costs and the industry is still in its early stages. As the production scale grows, the prices of these plastics can come down.

Recent developments in biopolymer packaging:

Natureworks' biopolymer INGEO 6500D:

Nonwoven applications get enhanced softness while maintaining higher tensile strength!

Hygiene applications such as diapers and wipes are becoming bio-based and NatureWorks has introduced Ingeo 6500D, a bio-based material for diapers and wipes. This material is known to enhance softness by 40% compared to the existing PLA while maintaining high tensile strength, therefore making the material more process efficient for the converters.

The manufacturers also combine the material with hydrophilic surface finish technology and the material provides better fluid management and breathability which ensures improved skin health it also allows the manufacturers to produce lighter and thinner absorbent hygiene products while reducing the material usage and improving overall sustainability.

Natureworks-CJ bio collaboration on biopolymers:

Natureworks has collaborated with CJ Bio to develop themselves and commercialize with novel high-performance biodegradable polymers. The collaboration focuses on integrating the company's Ingeo biomaterials technology with CJ Bio's polyhydroxyalkanoate (PHA). This PHA is a biodegradable polymer that is known for its versatility in varied applications.

The goal of the partnership is to enhance the biodegradability and performance of biopolymers and expand their use in food packaging, personal care products, and other applications. Now this synergy between INGEO and PHA is anticipated to provide mechanical properties and improved biodegradability and performance of the polymers. By expanding the performance and biodegradability these polymers can be used in food packaging, personal care products and other applications. These advancements have been made only due to growing consumer and industry demands for sustainable packaging and materials.

How is China performing in biopolymer manufacturing and technology?

Chinese plastic manufacturers are accounting for about 29% of global plastic production as they are focused on increased use of corn, sugar and other crops that develop biodegradable plastics and the country is very concerned about environmental pollution as well.

Recently the directives from Beijing and prospects of a ban on conventional plastic single-use non-biodegradable plastics such as cutlery, plastic bags and packaging are pushing the biopolymers industry in the country.

A recent report from Interpak 2023 stated that China holds a significant share in the global flexible packaging

market and their annual growth in the flexible packaging market is around 8%. The growth in the packaging industry is specifically driven by dynamic economic development, accelerating urbanization and improvement in consumers' quality of life. Consumers are shifting towards safe, unique and eco-friendly packaging therefore they take more interest in sustainable materials, and packaging and are concerned about the things that can have an impact on their health and environment.

For instance, in China, the total retail trade of foodstuff packaging in 2023 has surpassed 447,066 million units and there is a major demand for biodegradable polymers.

A report from the International Trade Centre in 2021 stated that China exported plastics and articles related to plastics valued at about USD 131.07 billion with a 36% rise in the exports from previous years.

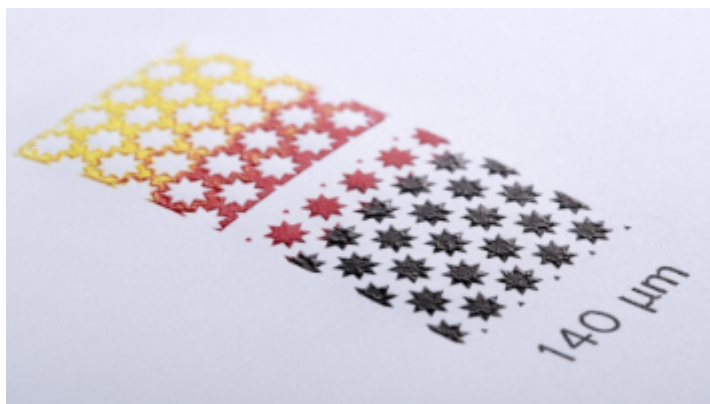
Therefore Chinese Biodegradable polymers market is expected to experience substantial growth in the upcoming years.

Take away:

The industries and consumers are seeking greener alternatives, biodegradable polymers stand at the forefront of sustainable innovation. The challenges related to costs, scalability, and regulatory compliance remain and the advancements in technology and environmental awareness are driving the adoption. The collaborations between biotechnology firms, governments, and manufacturers are becoming the key factors in making biodegradable polymers a mainstream solution. With appropriate support, these eco-friendly materials are capable of revolutionizing several industries while paving the way for a more sustainable and environmentally responsible future.

Covestro unveils Autentium®: an innovative step towards the future of currency printing

- Autentium® a mono-polymer solution for currency printing industry
- Recyclable printing substrate offers a more sustainable solution
- Combining advanced security features with durability and printability
- Debuting at Intergraf Currency + Identity, 2025 in Milano



The first polymer banknotes made their debut in the late 1980s. They reformed cash transactions with their modern design, allowing for new security features that were impossible with paper. Over time, countries such as Australia, Canada, and the United Kingdom have fully transitioned to polymer banknotes as their primary currency medium. Despite this progress, most banknotes worldwide are still made from paper and cotton composites, materials with inherent limitations such as a comparable short lifecycle and limited recyclability.

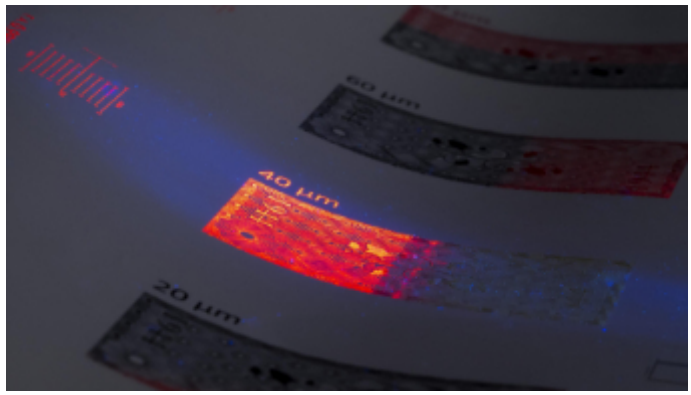
In response to the growing demand for sustainable solutions in currency printing, Covestro is introducing Autentium®, an innovative polymeric printing substrate. Designed exclusively for currency printing applications like banknotes, Autentium® combines cutting-edge anti-counterfeiting technology with a

recyclable mono-material design.

"The launch of Autentium® represents a significant breakthrough in currency printing, offering an innovative, recyclable polymeric substrate that excels in printability, durability and is more sustainable," says Daniel Hentschel, Global Segment Manager for ID & Security Printing at Covestro.

Key Features of Autentium® include:

- **Exceptional printability:** It supports secure printing techniques such as intaglio and offset, enabling embossed structures and therefore tactile security features that differ from traditional paper and existing polymer substrates.
- **No coatings or primers needed:** Its secondary properties as a hot-melt adhesive contribute to superior ink adhesion without requiring additional primers or coatings, streamlining the printing process and improving durability.
- **Water & Stain Resistance:** The polymer absorbs only minimal moisture, which contributes to a low static charge, while at the same time being resistant to contamination.



- **Advanced laser engraveability:** It allows precise micro-engravings, providing advanced anti-counterfeiting measures and enhancing currency security.

As a single-polymer solution, Autentium® is recyclable, addressing the demand for sustainable materials in banknote production. Its high tear propagation resistance and excellent ink adhesion contribute to extend the lifespan of printed currency and can help reducing the environmental impact and conserving resources.

Furthermore, its durable composition can translate into long-term costs savings by minimizing replacements, making it an ideal choice for governments and the public sector that prioritize security and environmental responsibility.

Meet Covestro at Intergraf Currency + Identity 2025

Covestro will showcase Autentium® and other advanced polymeric solutions at the Intergraf Currency + Identity 2025 trade show. Join us from **March 5-7, 2025, at the Allianz MiCo, Milano, Italy.** Visit us at booth 16 to discover how Autentium® can redefine your security printing requirements and drive innovation in currency production.

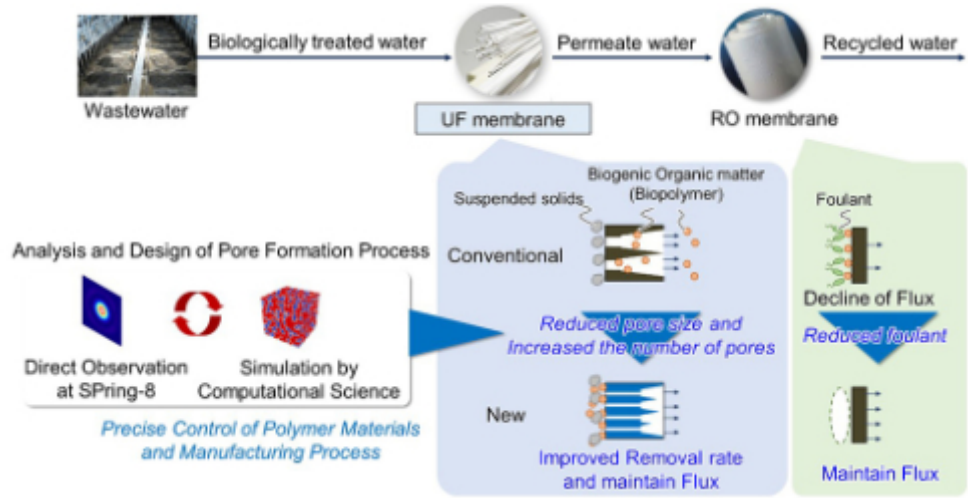
Source : Covestro

Toray Develops High-Efficiency Ultrafiltration Membrane that Can Cut Carbon Dioxide Emissions by More than 30%

Tokyo, Japan, February 20, 2025 – Toray Industries, Inc., announced today that it has developed a high-removal ultrafiltration (UF) membrane. This new offering maintains high water permeability of UF membranes while reducing the reverse osmosis (RO) membrane load to stabilize long-term production of high-quality water in wastewater reuse.

With global water demand rising, the use of hybrid UF and RO membranes to recycle wastewater and industrial effluent is fast expanding. Efforts have started around the globe to harness reused water for drinking and produce ultrapure water that is vital to manufacture semiconductors. Conventional UF membranes are poor at removing biopolymers commonly found in wastewater. RO membranes thus have to be cleaned more frequently with chemicals, increasing water production costs and carbon dioxide emissions.

Toray overcame that challenge by quantitatively analyzing the formation process of sub-10-nanometer nanopores in designing a high-removal UF membrane. It leveraged observations using the SPring-8 large synchrotron radiation facility (see glossary) and simulations to carefully assess the membrane structure. It drew on its findings to precisely control the polymer materials and manufacturing process to simultaneously create finer pores and increase the number of nanopores. This effort culminated in a high-efficiency UF membrane that can deliver



unprecedented removal performance and high water permeability.

Tests confirmed that the new UF membrane reduces biopolymer transmission, a prime factor in RO membrane contamination, to less than one-third of the levels of current offerings from Toray, providing excellent removal performance, including for sewage and industrial wastewater. Pilot operations at a sewage plant linked UF and RO membranes and demonstrated that the high-removal UF membrane maintained water permeability while reducing the decline in RO membrane permeability by one-third.

This advance should reduce the need for RO membrane cleaning in wastewater reuse applications, including for sewage treatment and industrial wastewater recycling in the chemical, steel, textile, and other sectors. It should also help minimize chemical cleaning, reduce operational problems, and extend RO membrane lifespans, thus cutting water treatment costs and lowering carbon dioxide emissions from replacing and disposing of RO membranes by more than 30%. Toray is preparing to mass produce this new offering, launching it in mid-2025 in North America, where wastewater reuse is rising, and then rolling it out in Japan and other markets.

The company will unveil the technology behind this product at the Membrane Technology Conference, one of the world's largest such events, which will open in the United States on February 24.

Toray will continue to innovate technologies that contribute to a sustainable economy in line with its corporate philosophy of contributing to society by creating new value with innovative ideas, technologies, and products.

Benefits of the new high-removal UF membrane in wastewater reuse

Source : Toray

LG Chem joins the Global Impact Coalition, strengthening its global reach and commitment to a net-zero chemicals future

Geneva, 22 January 2025 – The Global Impact Coalition (GIC), a CEO-led collaborative platform for a net-zero chemicals future, is proud to announce LG Chem as its newest member. As one of the world's largest chemical companies and a leader in sustainable materials, LG Chem's membership sends a strong signal to Asia and the broader industry that global collaboration is essential to developing sustainable and commercially viable solutions.

This milestone reinforces GIC's growing global impact and highlights the importance of international partnerships in scaling up solutions to reduce emissions. Notably, LG Chem is the first Korean company to join GIC, further cementing its commitment to fostering global collaboration for climate action.

Advancing sustainable materials and reducing carbon footprints across the value chain are critical to achieving net-zero success. LG Chem has long been a pioneer in sustainable innovation, from producing bio-based and recycled plastics to developing solutions that contribute to global energy transition goals. Through its membership in the GIC, LG Chem will collaborate with global industry leaders to scale sustainable technologies and explore new circular business models. LG Chem will work with other industry leaders on topics including sustainable methanol, improving end-of-life plastics recycling and utilizing AI to guide value creation along the chemicals value chain.

Hak Cheol Shin, Vice Chairman and CEO of LG

Chem, stated: "Joining the Global Impact Coalition reflects LG Chem's dedication to leading the way in sustainability. The GIC provides a unique opportunity to collaborate with peers and co-create solutions to accelerate the transition to a circular, net-zero future. We're eager to bring our expertise in sustainable materials to the GIC and contribute meaningfully to the GIC's mission."

Incubated at the World Economic Forum, GIC was founded by some of the world's leading chemical companies to tackle critical challenges to advance towards a circular and net-zero future. By fostering collaborative projects and developing new business models, GIC provides a platform for co-creation and commercialization of transformative technologies. GIC members include BASF, SABIC, Clariant, Covestro, LyondellBasell, Mitsubishi Chemical Group, Sabanci Holding, Syensqo, SUEZ and Siemens Energy.

Charlie Tan, CEO of the Global Impact Coalition, welcomed LG Chem to the platform: "We are honored to have LG Chem join the Global Impact Coalition. Their presence strengthens GIC's global reach, particularly in East Asia, a region central to the chemical sector's future. Together, we can fast-track the chemical sector's transition to a circular and low-carbon economy."

Source : LG Chem

Cellasto® strengthens its position in India by taking steps for capacity enhancement

- Cellasto® To Meet Local Demand And Strengthen Presence In The Indian Market
- New Plant To Enhance Capacity As Of 2nd Half 2026

Dahej, India – February 24, 2025 – BASF India Limited Has Broken Ground On A New Plant To Increase The Production Capacity Of Its Cellasto® Microcellular Polyurethane (MCU) In Dahej, India. Under BASF's New "Winning Ways" Strategy, The Plant Will Be Constructed With State-Of-The-Art Technologies And Automation Systems To Ensure That BASF's High Standards Of Safety And Quality Are Upheld. The Plant, Expected To Be Operational In The Second Half Of 2026, Features A New Mold Line In Its First Stage And Empowers Cellasto® To Meet The High Demands Of The Rapidly Growing Local Market.

A Strategic Move To Secure A Long-Term Success In India

Committed To "Producing In India For India", Cellasto® Established Its First Plant In Dahej In 2014, Providing Superior Solutions That Deliver Noise, Vibration, And Harshness (NVH) Reduction To The Automotive Industry. Cellasto®'s Latest Significant Investment Demonstrates Its Readiness To Support The Growth Plans Of Various Original Equipment Manufacturers And Its Confidence In The Indian Market.

"The New Facility Is Part Of Our Efforts To Innovate The Production Process. The Plant Will Flexibly Expand Production Further If Demand Increases. We Emphasize Our Long-Term Commitment To Better Serve Our Indian Customers. I Am Confident That This Strategic Move Will Position Us For Sustained Success In India," Said Bjoern Kophstahl, Vice President, Global Business Management For Cellasto®.

Becoming The Most Preferred Partner For NVH Solutions

"We Are Proud To Announce The Expansion Of Our Cellasto® Production Capacity In India As Reinforce Our Commitment To This Dynamic Market. This New Mold Line Will Enhance Our Ability To Deliver Innovative NVH Reduction Solutions And

EVENTS AND CONFERENCES

INTERDYE CHINA

Date : Apr. 16-18, 2025

City : Shanghai World Expo Exhibition & Convention Center

Country : China

Website : https://www.chinainterdye.com//en/category/63.html

Description : The Shanghai World Expo Exhibition And Convention Center(SWEECC) is one of the leading exhibition centers for international events worldwide, with advanced structure and facilities, convenient transportation, as well as its eco-friendly infrastructure.

CHEMSPEC EUROPE

Date : June, 4-5, 2025

City : Koelnmesse, Germany

Country : Germany

Website :https://www.chemspeceurope.com/#/

Description : Chemspec Europe is a key event for the fine and speciality chemicals industry. With a highly specialised profile, the exhibition is the place to be for purchasers and agents to meet with manufacturers, suppliers and distributors of fine and speciality chemicals to source specific solutions and bespoke products.
The event appeals to an international audience and Chemspec Europe is therefore a powerful gateway to global business and industry knowledge. The exhibition features the full spectrum of fine and speciality chemicals for various applications and industries.
In addition, a wide range of free conferences provides excellent opportunities to network with industry colleagues and exchange competencies on the latest market trends, technical innovations, business opportunities, and regulatory issues in an evolving market.

CPHI CHINA - VIRTUAL CPHI

Date : June.24-26, 2025

City : China, Shanghai, Shanghai New International Expo Center

Country : China

Website : hhttps://expopromoter.com/events/178656/?gad_source=1&gclid=CjwKCAjwvr--BhB5EiwAd5YbXlB7ITtJ2HBvoF-c7ujkv4toLhw0UJZlF66U7JkDTkobhU10ZdHmpBoCbn4QAvD_BwE

Description : CPHI & PMEC China 2025 is Asia's premier pharmaceutical event for sourcing, networking, learning and innovation with over 20 years' experience of bringing together Chinese and global pharma professionals. In 2025, CPHI & PMEC China will be held in 24-26 June 2025 at SNIEC (Shanghai New International Expo Centre), Shanghai, China. CPHI & PMEC China 2025 will cover more than 230,000 square meters of exhibition area, attract over 90,000 global attendees and 3,500 exhibitors, and hold more than 100 conferences during the exhibition. CPHI & PMEC China 2025 showcases a wide range of

pharmaceutical products and services, including: active pharmaceutical ingredients, Intermediates & fine chemicals, excipients, finished dosage formulation, biopharmaceuticals, natural extracts, CMO & CRO, machinery & equipment, packaging & drug delivery, laboratory equipment, cleanroom & pollution control and etc. The event brings together prominent domestic and international suppliers, international companies include: Biocon, Datwyler, Dishman Carbogen, EUROAPI, IFF, Merck Chemicals, OLON SPA, SHL Medical, Stevanato Group, Terumo, TEVA API, United States Pharmacopeia; Leading domestic pharmaceutical companies include: Acebright, FOSUN PHARMA, Huahai, Jiangsu Hengrui, North China Pharmaceutical, QILU PHARMACEUTICAL, Shanghai Pharmaceuticals Holding, SINOPHARM, Yangtze River Pharmaceutical, ZHEJIANG HISUN; as well as machinery companies such as Bio-Link, Canaan, Hanbon Sci.&Tech., HIGHFINE ENGINEERING, Pharma United, SeTAQ•, Shandong Shinva Medical Instrument, Tofflon, Tosoh Bioscience, Welkin Industry, Zhejiang Cosmos and etc.

CPHI JAPAN

Date : Apr. 9-11, 2025

City : East Halls 4, 5 & 6, Tokyo Big Sight, Tokyo, Japan

Country : Japan

Website : https://www.cphi.com/japan/en/home.html

Description : The event successfully concluded with 720 exhibiting companies and 21,159 unique attendees from 60 countries around the world. We invited the global pharma community to convene under one roof for three days of networking, forging important alliances and propelling the Japanese pharma sector forward.

SAUDI ARABIA COATING SHOW

Date : May 13-15, 2025

City : Dhahran Expo, Dammam, Saudi Arabia

Country : Saudi Arabia

Website :https://www.saudiarabiacoatingsshow.com/

Description : The Saudi Arabia Coatings Show is the only dedicated coatings trade exhibition in Saudi Arabia that brings the coatings industry together. The event creates the perfect environment for manufacturers, raw materials suppliers, distributors, buyers and technical specialists like formulators and chemists from the coatings industry to meet face-to-face and do business. That's not all, the event offers the opportunity to gather insight into the latest processes, exchange ideas with industry leaders and build a strong network in the region. For three days, the trade exhibition facilitates serious business and networking opportunities for the coatings community.

CPHI NORTH AMERICA

Date : May 20-22, 2025

City : Pennsylvania Convention Center, Philadelphia

Country : North America

Website : https://www.cphi.com/americas/en/home.html

Description : Whether you want to exhibit or visit, our post-show report will help you discover our show's key figures, gain insight into our audience and learn what they look for when doing business at our event.

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Continue To Position Us As A Preferred Partner For Our Automotive Customers. At BASF, We Remain Focused On Providing Exceptional Quality And Tailored Services To Meet The Specific Needs Of The Automotive Industry In India – This Capacity Expansion Is A Firm Step In That Direction," Said Alexander Gerding, Managing Director BASF India Limited.

Branded As Cellasto®, BASF Develops, Manufactures, And Sells A Diverse Range Of Components Made From Specialized MCU Elastomers For The Automotive Industry And Its Suppliers. Since 1961, Cellasto® Has Established Itself As A Leading Global Partner To The Automotive Sector, Co-Developing Various Applications Such As Jounce Bumpers, Top Mounts, Coil Spring Isolators, And More. Additionally, Cellasto® Also Offers Material Solutions For Industrial And Consumer Applications.

Source : BASF

Whitewater Management Expands Service Offerings with Acquisition of Orion Water Solutions, Strengthening Leadership in Fluid and Water Treatment Solutions

CALGARY, AB, March 3, 2025 / PRNewswire/ - Whitewater Management, a market-leading fluid management company founded in 2010, is pleased to announce its purchase of Orion Water Solutions, a pioneer in advanced wastewater treatment solutions. The acquisition strategically positions Whitewater and its production chemical company Catalyst Production Services for continued growth while enhancing their ability to provide sophisticated water treatment solutions across a range of industries.

"Whitewater has always been focused on providing high-quality fluid management solutions, and this acquisition is a natural extension of that commitment," said Rod Stearn, President and CEO at Whitewater. "By integrating Orion's advanced Dissolved Air Flotation (DAF), Chlorine Dioxide and biological wastewater treatment technologies, we will unlock new opportunities across multiple sectors, including oil & gas, mining, and municipal infrastructure. This is an exciting milestone that will help us continue our trajectory of sustained growth."

Founded in 2016, Orion Water Solutions specializes in advanced treatment systems, transforming wastewater into crystal-clear, reusable water. With mobile and fixed facility treatment units, Orion integrates best-in-class technologies, providing scalable solutions to a wide array of markets. Strategically located in the Permian Basin, Orion has established a strong presence in the energy sector and Gulf Coast industrial and municipal markets.

"The synergies between our companies are clear and our cultures are a great fit," said Gary Griesenbeck, CEO of Orion. "Unifying our advanced treatment techniques with Whitewater's capabilities, we can expand our impact and reach while delivering innovative, scalable solutions to a broader range of industries."

The acquisition will also pave the way for Whitewater's cross-border expansion, furthering its presence in North America. With a strengthened service

offering and access to innovative water treatment technologies, Whitewater is positioned for continued growth and success in key markets.

Whitewater Management and Catalyst Production Services are owned by the Hillcore Group, a leading independent Canadian investment firm.

Sparkstone Capital Advisors, LLC acted as the exclusive financial advisor to Orion Water Solutions in connection with this transaction.

Source : Whitewater Management

Lucas Meyer Cosmetics by Clariant to launch Melicica™, an innovative honey-based repair solution for damaged skin

- Melicica boosts and optimizes the skin's natural repair process for all ages, scar types, and skin phototypes
- Melicica has potential applications in skin repair, scar and acne-prone skin care, tone evening and brightening, texture improvement, baby care, sensitive skin solutions, post-procedure recovery and stretch mark care
- This honey-based ingredient has been shown to actively modulate the expression of genes with key roles in the skin repair process, regulating inflammation, oxidative stress, collagen production and keratinocyte migration

QUEBEC, March 4, 2025 - Lucas Meyer Cosmetics by Clariant is excited to announce the global launch of Melicica, a natural skin repair ingredient inspired by the traditional healing properties of honey. Melicica is a natural extract of Jelly Bush honey, also known as Australian Manuka honey, which has long been prized for its unique biochemical composition and healing properties.

"Melicica offers an effective and innovative solution for improving damaged skin appearance across various skin types and concerns," says Isabelle Lacasse, Head of Global Marketing, Product Line Management and Formulation at Lucas Meyer Cosmetics at Clariant. "We have shown that this product provides numerous skin repair benefits ranging from reduced scar visibility to improved overall skin appearance, contributing to greater self-confidence and well-being." Melicia (INCI: Glycerin (and) Water (and) Honey Extract) is particularly rich in potent bioactive compounds like leptosperin, which are found exclusively in specific varieties of Manuka flowers and known for their skin-healing properties. Rigorous scientific data shows that this powerful biochemical profile enables Melicica to enhance the skin's natural repair capabilities.

In vitro studies have confirmed Melicica's ability to reduce the production of pro-inflammatory mediators and free radicals to mitigate inflammation and oxidative stress, enhance skin regeneration by modulating pro-collagen I production, and accelerate re-epithelialization by stimulating keratinocyte migration. Additionally, ex vivo studies have validated Melicica's capacity to modulate key gene expression across different phases of skin healing, optimizing skin repair and reducing scar appearance.

Natural skin repair solution designed for all

Every year, more than 100 million people struggle with visible scarring, impacting their confidence and overall quality of life. Existing treatments often lack accessibility or effectiveness, cause side effects, or are unsuitable for all skin type needs. To address the crucial need

for a better alternative, Lucas Meyer Cosmetics by Clariant developed Melicica, a convenient, soothing, and broadly applicable skin repair solution.

Its efficacy was proven in two clinical trials. In the first trial, involving women and men with skin phototypes II to VI, Melicica demonstrated significant effectiveness in reducing the appearance of scars of all types, from old to new atrophic, hypertrophic, and keloid scars. Participants exhibited a noticeable reduction in scar number, visibility, and the appearance of redness, along with improved skin texture, luminosity, and color evenness. These changes contributed to a more natural, healthy skin appearance, enhancing confidence and well-being.

In the second clinical trial involving

babies aged 2 to 30 months, Melicica demonstrated its ability to reduce diaper-induced erythema, a common and distressing condition that affects over 50% of babies. Even on delicate baby skin, it quickly alleviated discomfort and minimized redness. Additionally, when tested in combination with zinc oxide, Melicica showed a synergistic effect, enhancing its efficacy.

Gentle enough for sensitive skin yet powerful enough to address various damaged skin concerns, Melicica offers a holistic, inclusive approach that addresses the physical and emotional aspects of skin damage.

Melicica is China compliant, COSMOS approved, RSPO and HALAL certified, with 100% natural origin content, free from preservatives and parabens, eco-friendly, and readily biodegradable.

Melicica™ IS A TRADEMARK OF CLARIANT.

Source : Press Release

Clinical Luxury Skincare Brand Rodan + Fields Enters Prestige Retail with Ulta Beauty Launch

SAN FRANCISCO, March 3, 2025 / PRNewswire/ -- Rodan + Fields Beauty, LLC ("R+F" "Rodan + Fields" or "the Company"), the #1 Female Dermatologist-founded Skincare Brand in the U.S.,* is making its debut in retail through an exclusive partnership with Ulta Beauty. This marks a major milestone for the brand, bringing its dermatologist-developed products to a broader audience in both 150 Ulta Beauty stores nationwide and on Ulta.com.

For over a decade, Rodan + Fields has been a go-to for millions seeking powerful, results-driven and life-changing skincare. Now, for the first time, consumers can experience the brand in-store at one of the most loved beauty destinations, Ulta Beauty, and can now discover firsthand the transformative Rodan + Fields formulas designed by world-class dermatologists and scientists.

"We have been the skincare brand of choice for millions of women for over 15 years, and we're excited to expand into retail, allowing even more women to experience our cutting-edge formulas," said Anncy Rowe, Chief Commercial Officer of Rodan + Fields. "At Rodan + Fields, we're not just delivering clinical solutions - we're delivering Women-Backed Science™. For us, that means creating products tailored for the unique needs of women's skin, clinically tested, and trusted by millions. It's what makes us the #1 Female Dermatologist-founded Skincare Brand in the U.S.* We're thrilled to introduce our products to Ulta Beauty guests seeking high-performance skincare they can trust."

Developed by women, for women, the Company's team of dermatologists and scientists is on a relentless pursuit to deliver real results by leveraging the right combination of cutting-edge

Mumbai Market Price as on 08/03/2025

Name of Chemical	Current Price	Location
Acetic Acid-Imported Repack	41	Mumbai
Acetic Acid-Imported Repack	44	Mumbai
Acetic Acid-Domestic Intact	57	Mumbai
Acetic Acid-Domestic Repack	44	Mumbai
Acetone-Imported Repack	84	Mumbai
Acetone-Domestic Intact	94	Mumbai
Acetone-Domestic Intact	84	Mumbai
Acetonitrile-Imported Intact	131	Mumbai
Acetonitrile-Domestic Intact	150	Mumbai
Acetonitrile-Domestic Repack	130	Mumbai
Acrylonitrile-Imported Intact	180	Mumbai
Acrylonitrile-Imported Repack	170	Mumbai
Aniline-Imported Intact	150	Mumbai
Aniline-Domestic Intact	156	Mumbai
Benzene-Domestic Repack	90	Mumbai
Cyclohexane-Imported Intact	120	Mumbai
Cyclohexane-Domestic Intact	110	Mumbai
Cyclohexane-Domestic Repack	107	Mumbai
Cyclohexanone-Imported Intact	150	Mumbai
Cyclohexanone-Imported Repack	130	Mumbai
Cyclohexanone-Domestic Intact	150	Mumbai
Cyclohexanone-Domestic Repack	137	Mumbai
C9 Solvent (99.99% purity)-Imported Repack	108	Mumbai
C9 Solvent (Arham Petrochem)-Imported Repack	107.75	Mumbai
Dibutyl Phthalate-Domestic Intact	122.5	Mumbai
Dioctyl Phthalate-Domestic Intact	123	Mumbai
Ethyl Acetate-Domestic Intact	77	Mumbai
Ethyl Acetate-Domestic Repack	73	Mumbai
Formaldehyde(37%)-Domestic Repack	23	Mumbai
Methanol-Imported Repack	48.5	Mumbai
Methyl Ethyl Ketone-Imported Intact	120	Mumbai
Methyl Ethyl Ketone-Imported Repack	111	Mumbai
Methyl Isobutyl Ketone-Imported Intact	150	Mumbai

Methyl Isobutyl Ketone-Imported Repack	139	Mumbai
Methyl Methacrylate-Imported Intact	148	Mumbai
Mixed Xylene-Imported Repack	79	Mumbai
Mixed Xylene-Domestic Repack	78	Mumbai
Monoethylene Glycol-Imported Repack	62.5	Mumbai
Monoethylene Glycol-Domestic Intact	66	Mumbai
Monoethylene Glycol-Domestic Repack	63	Mumbai
Iso propyl Alcohol-Imported Repack	104	Mumbai
Iso propyl Alcohol-Domestic Intact	115	Mumbai
Iso propyl Alcohol-Domestic Repack	104	Mumbai
nButanol-Imported Repack	98	Mumbai
nButanol-Domestic Intact	113	Mumbai
nButanol-Domestic Repack	98	Mumbai
Ortho Xylene-Imported Repack	105	Mumbai
Phenol-Imported Repack	101	Mumbai
Phenol-Domestic Intact	112	Mumbai
Phenol-Domestic Repack	103	Mumbai
Phthalic Anhydride-Imported Intact	106	Mumbai
Phthalic Anhydride-Domestic Intact	106	Mumbai
Styrene Monomer-Imported Repack	109	Mumbai
Toluene-Imported Repack	82	Mumbai
Toluene-Domestic Repack	82	Mumbai
Vinyl Acetate Monomer-Imported Repack	84	Mumbai

Note-Above prices have been collected from experts and experienced outsources of the industry.Kindly verify from your end as well.

International market prices as on 10/03/2025

Product	Regions	Current prices
Feedstock Prices $/unit		
Crude Oil ($/barrel)	WTI CRUDE	66.57
	BRENT CRUDE	69.94
	MARS US	73.22
	OPEC BASKET	71.75
Natural Gas	New York	4.64
Gasoline	RBOB	2.09

Heating Oil	US	2.19
Ethanol	US	1.69
Naphtha	FOB Singapore	630
	European	605
	CFR Far East Asia	623
Propane	New York	0.86
Aromatics prices $/MT		
Benzene	FOB Korea	840
	CFR Japan	860
Styrene	CFR Japan	1000
	CFR South East Asia	1025
	CFR China	1000
	FOB Korea	990
Toluene	CFR China	755
	CFR South East Asia	795
	FOB Korea	720
	CFR Japan	755
Iso-Mix Xylene	CFR South East Asia	770
	CFR Taiwan	770
	FOB Korea	740
MEG	CFR China	535
	CFR South East Asia	540
Methanol	CFR China	297
	CFR Korea	356
	CFR South East Asia	372
	CFR Taiwan	351
Solvent-MX	CFR South East Asia	760
	FOB Korea	675
	CFR China	730
Ortho Xylene	CFR South East Asia	935
	FOB Korea	945
	CFR China	925
Para Xylene	CFR South East Asia	830
	FOB Korea	810
	CFR Taiwan	835
Propylene	FOB Japan	810

	FOB Korea	820
	CFR China	840
	CFR South East Asia	865
Propylene Glycol	FOB Korea	820
	CFR China	850
Ethylene	CFR North East Asia	865
	CFR South East Asia	915
	FOB Japan	830
	FOB Korea	835
EDC	CFR Far East Asia	220
	CFR South East Asia	230
Butadiene	CFR China	1345
	CFR South East Asia	1295
	FOB Korea	1335
Benzene	FOB Rotterdam	760
Methanol	FOB Rotterdam	352
Ortho Xylene	FOB Rotterdam	1155
Para Xylene	FOB Rotterdam	850
Solvent-MX	FOB Rotterdam	725
Styrene	FOB Rotterdam	1320
Toluene	FOB Rotterdam	830
Benzene C/G	FOB US Gulf	275
Toluene C/G	FOB US Gulf	279
Styrene C/LB	FOB US Gulf	51
Para Xylene $/MT	FOB US Gulf	885
Mix Xylene C/G	FOB US Gulf	262
Methanol C/G	FOB US Gulf	108
Intermediates prices $/MT		
Acrylonitrile	CFR Far East Asia	1295
	CFR South East Asia	1295
	CFR South Asia	1235
VCM	CFR Far East Asia	520
	CFR South East Asia	545
MTBE	FOB Singapore	705
	FOB US Gulf	720
Phenol	CFR China	935

	CFR South East Asia	1040
	FOB US Gulf	1146
	FOB Rotterdam	989
Acetone	CFR China	780
	CFR South East Asia	785
	CFR Far East Asia	755
	FOB US Gulf	1047
	FOB Rotterdam	816
Caprolactum	CFR Far East Asia	1445
	CFR South East Asia	1435
Caustic Soda	FOB North East Asia	460
	CFR South East Asia	520
Ethyl Acetate	FOB US Gulf	1543
	FOB Rotterdam	1036
	FD North West Europe(Euro/mt)	1090
Butyl Acetate	FOB US Gulf	1738
	FOB Rotterdam	1266
	FD North West Europe(Euro/mt)	1310
MEK	FOB Rotterdam	1360
	FD North West Europe(Euro/mt)	1400
IPA	FOB US Gulf	1300
	FOB Rotterdam	1099
	FD North West Europe(Euro/mt)	1150
NBA	CFR China	950
	CFR South East Asia	950
	CFR Far East Asia	945
Octanol	CFR China	1015
	CFR South East Asia	1045
	CFR Far East Asia	1010
DOP	CFR China	1130
	CFR South East Asia	1135
	CFR Far East Asia	1125
Phthalic Anhydride	CFR China	1000
	CFR South East Asia	1020
	CFR Far East Asia	995
PTA	CFR Far East Asia	630

	CFR South East Asia	650
Acetic Acid	CFR Far East Asia	430
	CFR South East Asia	440
	CFR South Asia	375
	FOB China	330
VAM	CFR China	845
	CFR South East Asia	800
	CFR South Asia	840

Shipping term		Description
FOB	Free on Board	The seller quotes a price including the cost of delivering goods to the nearest port. The buyer bears all the shipping expenses and is responsible to get the products from that port to its final destination. In simple terms, FOB price means the buyer has to bear the shipping costs completely. This is one of the most used shipping terms by international buyers and sellers.
EXW	Ex-Works	The seller has no involvement with the transportation costs and risks. The buyer has to collect the goods from the seller's site and get them to the final destination. All the costs and risks are borne by the buyer. It is advisable that the buyer purchases insurance since the goods can get damaged in transit. EXW is ideal when the buyer and seller are in the same country or region.
CFR	Cost and Freight	The seller pays the loading and freight costs from his premises up to the destination port. Then, the buyer has to arrange for the goods to be transported from the port to his premises. The seller is only responsible for the cost of shipping the products to the destination port. CFR is used for products transported by sea or inland waterways only. The seller does not bear the risk of loss or damage during transit.
CIF	Cost, Insurance, and Freight	If the buyer opts for CIF price, the seller pays for the loading and freight costs right from his premises up to the destination port as well as insurance. In the case of damage or loss, the seller bears the risk completely. The buyer has to arrange for transportation of the goods from the port to his premises. CIF is a safer option than CFR since the goods are insured by the seller up to their arrival at the destination port.
DAP	Delivered at Place	It was previously known as DDU, Delivery Duty Unpaid. In this case, the seller is responsible for getting the goods from his own factory up to the premises of the buyer. He also bears the risk in the case of loss or damage of the goods right until the products are delivered to the buyer. The buyer only has to pay the import duties or custom clearance charges.
DDP	Delivery Duty Paid	The seller is responsible for shipping the goods from his factory to the destination address provided by the buyer, usually his factory or warehouse and is also liable for any damage or loss of goods during transit. The seller also takes care of the customs, VAT, or import duties levied on the products. The buyer only has to receive the products at the destination. In most cases, most sellers only offer DDP for small shipments.

FD North West Europe	**Free Delivered**	**Free Delivered North West Europe**	**Free Delivered North West Europe**	**Free Delivered North West Europe**
Countries Groups	Southeast Asia is composed of eleven countries: Brunei, Burma (Myanmar), Cambodia, Timor-Leste, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam.	Far East Asia:The following countries are considered to be located in the Far East: China, Hong Kong, Macau, Japan, North Korea, South Korea, Mongolia, Siberia, Taiwan, Brunei, Cambodia, East Timor, Malaysia, Laos, Indonesia, Myanmar, Singapore, Philippines, Thailand, and Vietnam.	South Asia: The region consists of the countries of Afghanistan, Pakistan, India, Nepal, Bhutan, Bangladesh, the Maldives, and Sri Lanka	Northwestern Europe usually consists of the United Kingdom, the Republic of Ireland, Belgium, the Netherlands, Luxembourg, Northern France, Northern Germany, Denmark, Norway, Sweden, and Iceland.

Opening Ports Price (Rs/kg) of Chemicals as on 10/03/2025

USD Exchange Rate: 83.98 INR

Products	Current Prices (INR/kg)	Prices in USD/mt Equivalent to INR/kg	Location
Acetic Acid	36	412.94	Ex-Kandla
Acetic Acid	37	424.41	Ex-Mumbai
Acetonitrile-imported intact	135	1548.52	Ex-Bhiwandi
Acetone	78	894.70	Ex-Mumbai
Acrylic Acid	87.5	1003.67	Ex-Mumbai
Acrylonitrile	121	1387.93	Ex-Kandla
Adipic Acid	114	1307.64	Ex-Bhiwandi
Aniline Oil	130	1491.17	Ex-Kandla
Benzene	79.5	911.91	Ex-Vizaz
Butyl Acetate	86	986.46	Ex-Kandla
Butyl Acrylate Monomer	119	1364.99	Ex-Kandla
Butyl Glycol	103	1181.46	Ex-Kandla
C10	90	1032.35	Ex-Kandla
C9	83	952.05	Ex-Kandla
Carbon Black-regular grade	60	688.23	Ex-Mumbai
Caustic Soda Lye	40	458.82	Ex-Dahej
Chloroform	13.25	151.98	Ex-Dahej
Citric Acid-ANHYD	73	837.35	Ex-Bhiwandi
Citric Acid-Mono	64	734.11	Ex-Bhiwandi
Cyclohexane	98.5	1129.85	Ex-Hazira

Cyclohexanone	116	1330.58	Ex-Kandla
DMF Drum	76	871.76	Ex-Bhiwandi
DEG	60	688.23	Ex-Hazira
EDC	24	275.29	Ex-Kandla
Epoxy Resin	190	2179.40	Ex-Nhava Sheva
Ethyl Acrylate	122	1399.40	Ex-Kandla
Formic Acid	65	745.58	Ex-Bhiwandi
Glycerine	81	929.11	CIF Nhava Sheva
N-Heptane	205	2351.46	Ex-Bhiwandi
Hexane	78	894.70	Ex-Kandla
Hydrogen Peroxide-50%	25	286.76	Ex-Bhiwandi
Isobutanol	86	986.46	Ex-Kandla
IPA	94	1078.23	Ex-Kandla
IPA	97	1112.64	Ex-Mumbai
LAB	130	1491.17	Imported
Maleic Anhydride-Drum	89	1020.88	Ex-Mumbai
MDC	28	321.17	Ex-Dahej
MEG	55	630.88	Ex-Mumbai
MEK	98	1124.11	Ex-Kandla
Melamine	78.5	900.44	Imported
Methanol	34.75	398.60	Ex-Kandla
Methanol	35	401.47	Ex-Mumbai
MIBK	125	1433.82	Ex-Hazira
Mix Xylene-Solvent Grade	68	780.00	Ex-Kandla
Mix Xylene-Solvent Grade	70	802.94	Ex-Mumbai
MMA	142	1628.81	Ex-Hazira
N-Butanol	85	974.99	Ex-Kandla
N-Propanol	96	1101.17	Ex-Kandla
NPAC	93	1066.76	Ex-Kandla
Octanol	103	1181.46	Ex-Kandla
Ortho Xylene	95	1089.70	Ex-Kandla
Phenol	88	1009.41	Ex-Kandla
Phenolic Resin	160	1835.28	Ex-Indore
Phthalic Anhydride	108	1238.82	Ex-Mumbai
Propylene Glycol	83	952.05	Ex-Kandla

Sodium Nitrate (50Kg Bag)	61	699.70	Ex-Make-Lasons
Soda Ash Light	35	401.47	Ex-Bhiwandi
Styrene Monomer	98	1124.11	Ex-Kandla
Styrene Monomer	99	1135.58	Ex-Mumbai
Sulphuric Acid	9	103.23	Ex-Vapi
Tio2 (Anatase Grade)	195	2236.75	Ex-Bhiwandi
Tio2 (Rutile Grade)	220	2523.51	Ex-Bhiwandi
Toluene	71	814.41	Ex-Kandla
Toluene	72	825.88	Ex-Mumbai
VAM	74	848.82	Ex-Kandla
VAM	75	860.29	Ex-Hazira

Producer Prices (Rs/kg) of Chemicals as on 10/03/2025

Producers	Current Price	Import parity	Location
	(Rs/kg)	Price in	USD/MT
Accord-Ethyl Acetate	64.75	742.72	Ex-Maharashtra
Arham Petrochem-C9	82.75	949.19	Ex-Kandla
Arham Petrochem-C9	83.75	960.66	Ex-Ahmedabad
Arham Petrochem-C10	89.5	1026.61	Ex-Kandla
Arham Petrochem-C10	89	1020.88	Ex-Ahmedabad
Arham Petrochem-C10 (Imported Repack)	95.75	1098.30	Ex-Bhiwandi
Arham Petrochem-MTO/White Spirit (KL)	59.65	684.22	Ex-Kandla
Arham Petrochem-MTO/White Spirit (KL)	60.65	695.69	Ex-Ahmedabad
Arham Petrochem-De-Aromatised D40	130	1491.17	Ex-Kandla
Arham Petrochem-De-Aromatised D40	131	1502.64	Ex-Ahmedabad
Arham Petrochem-De-Aromatised D60	139	1594.40	Ex-Kandla
Arham Petrochem-De-Aromatised D60	140	1605.87	Ex-Ahmedabad
Andhra Petrochemicals-Iso-Butanol	101.5	1164.26	Ex-Vishakhapatnam
Andhra Petrochemicals-N-Butanol	83	952.05	Ex-Vishakhapatnam
Andhra Petrochemicals-Octanol	98	1124.11	Ex-Vishakhapatnam
BASF-Adipic Acid	135	1548.52	Imported
BPCL-2-Ethyl Hexanol (B)	99.11	1136.84	Ex-Kochi
BPCL-2-Ethyl Hexanol (P)	109.61	1257.28	Ex-Kochi
BPCL-2-Ethyl Hexyl Acrylate (B)	133.35	1529.59	Ex-Kochi
BPCL-2-Ethyl Hexyl Acrylate (P)	143.35	1644.30	Ex-Kochi

BPCL-Acrylic Acid (B)	86.95	997.36	Ex-Kochi
BPCL-Acrylic Acid (P)	95.95	1100.60	Ex-Kochi
BPCL-Benzene	82.7	948.61	Ex-Mumbai
BPCL-Butyl Acrylate (B)	111.75	1281.83	Ex-Kochi
BPCL-Butyl Acrylate (B)	114.25	1310.51	Ex-Kandla
BPCL-Butyl Acrylate (P)	121.75	1396.54	Ex-Kochi
BPCL-Hexane (KL)	101.15	1160.24	Ex-Mumbai
BPCL-Hexane (MT)	152.34	1747.42	Ex-Mumbai
BPCL-Iso-Butanol (B)	90.98	1043.59	Ex-Kochi
BPCL-Iso-Butanol (P)	101.98	1169.76	Ex-Kochi
BPCL-MTO (KL)	84.4	968.11	Ex-Mumbai
BPCL-N-Butanol (B)	87.08	998.85	Ex-Kochi
BPCL-N-Butanol (B)	92.05	1055.86	Ex-Kandla
BPCL-N-Butanol (P)	100.55	1153.36	Ex-Kochi
BPCL-Paraffin Wax	105	1204.40	Ex-Delhi
BPCL-Sulphur (Molten)	21.27	243.98	Ex-Mumbai
BPCL-Toluene	77.25	886.10	Ex-Mumbai
Deepak Phenolics-Acetone	76.5	877.49	Ex-Dahej Gujarat
Deepak Phenolics-IPA	93.5	1072.49	Ex-Dahej Gujarat
Deepak Phenolics-Phenol	86	986.46	Ex-Dahej Gujarat
GACL-Caustic Soda Lye	40	458.82	Ex-Dahej Gujarat
GACL-MDC	28.25	324.04	Ex-Bharuch Gujarat
GNFC-Acetic Acid	39	447.35	Ex-Bharuch Gujarat
GNFC-Aniline Oil	133.5	1531.31	Ex-Bharuch Gujarat
GNFC-Ethyl Acetate	66	757.05	Ex-Bharuch Gujarat
GNFC-TDI Drum	210	2408.81	Ex-Bharuch Gujarat
Grasim-MDC	28	321.17	Ex-Gujarat
GSFC-Cyclohexane	97.5	1118.38	Ex-Gujarat
HOCL-Acetone	100.5	1152.79	Ex-Kochi
HOCL-Phenol	106	1215.88	Ex-Kochi
IOCL-Banzene	91.5	1049.55	Ex-Vadodara Gujarat
IOCL-DEG	54.9	629.73	Ex-Odisha(Paradip)
IOCL-DEG	54.9	629.73	Ex-Panipat
IOCL-LAB	160	1835.28	Ex-Gujarat
IOCL-MEG	57.4	658.41	Ex-Odisha(Paradip)

IOCL-MEG	58.9	675.61	Ex-Panipat
IOCL-Paraffin Wax	105	1204.40	Ex-Delhi
Jubilant-Ethyl Acetate	68.5	785.73	Ex-Maharashtra
Laxmi-Ethyl Acetate	65.5	751.32	Ex-Maharashtra
Meghmani-Caustic Soda Lye	39	447.35	Ex-Bharuch Gujarat
Meghmani-MDC	28	321.17	Ex-Ankleshwar Gujarat
NIRMA-LAB	150	1720.58	Ex-Vadodra
Reliance-Caustic Soda Lye	39.5	453.09	Ex-Gujarat
Reliance-DEG	56.5	648.08	Ex-Jamnagar
Reliance-LAB	NA	Not Available	Ex-Vadodra
Reliance-MEG	59.5	682.50	Ex-Jamnagar
Reliance-Mix Xylene	70	802.94	Ex-Jamnagar
Reliance-PTA	73.8	846.52	Ex-Dahej Gujarat
Reliance-Toluene	76	871.76	Ex-Jamnagar
SI GROUP-Phthalic Anhydride	103	1181.46	Ex-Navi Mumbai
TATA Chemicals-Soda Ash light	34	390.00	Ex-Bhiwandi

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ingredients. Every formula is developed in R+F's Berkeley, California lab, where pioneering ingredients are meticulously researched and optimized for maximum efficacy.

"We are excited to welcome Rodan + Fields to the Ulta Beauty family," said Lisa Tamburello, Vice President of Merchandising at Ulta Beauty. "As a female and dermatologist-founded skincare brand, R+F brings innovative formulas that align with our commitment to offering guests effective solutions. We look forward to introducing their products to even more beauty enthusiasts through this exclusive retail partnership."

As part of its continued evolution, Rodan + Fields is also unveiling a new Dermatologist Advisory Board, a collective of board-certified dermatologists, to double down on its commitment to dermatologist-developed insights and solutions. The Dermatologist Advisory Board will collaborate with the Company's innovation team to advance the use of proprietary ingredients, breakthrough technologies, and innovative solutions for both skin and hair care.

With this retail expansion and an ever-growing commitment to skincare excellence, Rodan + Fields is poised to bring its revolutionary products to more consumers than ever before. The affiliate fueled, omni-channel brand is making an unprecedented investment in paid media, influencer partnerships, and PR, taking a 360 integrated approach to elevate Rodan + Fields' brand awareness.

Source : Rodan & Fields, LLC

China's Green Hydrogen Boom Surpassing Targets and Leading the Low-Carbon Future

Vinodhini Harish

Introduction:

China's rapid advancements in green hydrogen production are setting a global benchmark in the shift towards a low-carbon future. As the world's largest consumer and emitter, China has recognized hydrogen as a cornerstone of its sustainability strategy. With an ambitious roadmap, the country is not only surpassing its initial production targets but also developing a robust hydrogen ecosystem supported by policy frameworks, industrial innovation, and large-scale infrastructure projects. However, the path to a fully decarbonized hydrogen economy is filled with challenges such as transitioning from grey hydrogen, managing geographical disparities, and ensuring cost competitiveness. Will China's leadership in hydrogen technology redefine global energy markets or will these obstacles hinder its progress?

China Surpasses Green Hydrogen Targets, Driving Global Low-Carbon Shift

The country has marked significant progress in its low-carbon energy transition strategy emphasizing hydrogen as a crucial component.

According to Rystad Energy, the audiotrack is to produce tract approximately 2.5 gigawatts of hydrogen electrolyzer capacity by the end of the year, producing 220,000 tonnes per num of green, hydrogen surpassing the combined output of the rest of the world by 6 kilotonnes per annum.

China's national plan aims for 220,000 tpa of green hydrogen production by the end of 2025. In 2023 alone, China installed 1 GW of electrolyzer capacity, reinforcing its leadership in hydrogen technology. Despite this progress, much of the country's capacity fortifies its leadership in hydrogen technology. Despite this progress, much of China's current hydrogen supply is derived from grey hydrogen, produced through coal gasification or steam methane reforming SMR. Transitioning to low-carbon hydrogen production methods is vital for China to meet its dual carbon objectives of peaking emissions by 2030 and achieving carbon neutrality by 2060.

What are the goals?

China has officially incorporated hydrogen energy into government work reports and energy law since the country recognized green hydrogen as a key energy source and therefore included it in the national energy policy. Thus the new energy law is now encouraging the growth and use of hydrogen.

Moreover, the country is now aiming to reach 1.2 million tons of green hydrogen production by 2025, with inner Mongolia alone accounting for over 40% of its target. The country also aims to have at least 90,000 fuel cell vehicles on the road with the cities like Beijing, Shanghai, and Guangdong each targeting 10,000 units.

Currently, green hydrogen production stands at 110,000 tons which is still only 90,000 tons short of the target. The new projects are launching and government support for both hydrogen production and fuel cell vehicles is expected to grow rapidly by the end of this year.

Green hydrogen is getting adopted in vast applications such as chemicals,

transportation, energy storage and power supply. On the other hand, government policies are promoting low-carbon hydrogen as a cleaner alternative in industries such as ammonia, methanol, petrochemicals, and steelmaking. Some regions are experimenting with biofuels for shipping and aviation such as bio-diesel, bio-aviation fuel green hydrogen-based methanol and ammonia.

China's green hydrogen expansion strategies are well-designed planned roadmap:

China's green hydrogen expansion strategies are designed around the strengths of renewable energy, industrial capacity, and state-backed policy support. The country has positioned itself as a global leader in green hydrogen by leveraging several factors such as:

China's Hydrogen Industry Development plan is a part of a long-term plan for green hydrogen growth. As a part of this roadmap, the country is building centralized innovation hubs to advance hydrogen technologies. The developing infrastructure for production, storage, and transport. Along with these regulations, the green hydrogen pricing policies are making it more competitive.

China is aiming to produce 100,000 to 200,000 tonnes of green hydrogen per year. Green hydrogen is produced using renewable energy sources such as solar, and wind power instead of fossil fuels.

Xinjiang has abundant renewable energy, and leveraging this asset companies like Sinopec are investing heavily in hydrogen projects. For instance, Sinopec has already launched a 20,000-ton-per-year green hydrogen plan in the region.

China is aiming to achieve 80GW of electrolyzer capacity. The Electrolyzers split water into hydrogen and oxygen using electricity generated from renewable sources.

China is building a network of hydrogen pipelines, as they are the cost-effective and reliable way to transport hydrogen over long distances compared to trucks or trains. This ensures a steady supply to industries. These pipelines are expensive during the construction phase, however post-construction, they efficiently reduce transportation costs, making hydrogen more affordable for industries such as energy, transportation and manufacturing.

Sinopec is constructing a 400-kilometre pipeline from Ulanqab in Inner Mongolia to Yanshan in Beijing. Initially, it will transport 100,000 tonnes of hydrogen per year, with the potential to increase capacity to 500,000 tonnes.

Another massive project following this is a 737-kilometre pipeline from Zhangjiakou to the port of Caofeidian, passing through Chengde and Tangshan, that includes an investment of $845 million.

Overall China Petroleum Pipeline Engineering Corporation plans to expand the hydrogen pipeline network to 6000 kilometers by 2050.

Furthermore, China is targeting to deploy about 50,000 fuel cell vehicles which use hydrogen as a fuel to generate electricity in an electrochemical reaction. The hydrogen refuelling stations are being expanded with Sinopec planning to build 1000 hydrogen refuelling stations to support the transition.

Sinopec has launched the world's largest green hydrogen project for coal chemical production in Inner Mongolia, with an investment of $830 million. The project will produce about 30,000 tons of green hydrogen and 240,000 tons of green oxygen annually. Inner Mongolia is a major coal-producing region and is rapidly expanding its renewable energy sector, which includes hydrogen production, electric vehicle charging, and solar and wind power. The region has also built a myriad of photovoltaic power stations and EV charging facilities that contribute to lower carbon emissions. Sinopec is already producing 4.5 million tons of hydrogen annually and has constructed over 100 hydrogen fuelling stations as a part of its goal to lead China's hydrogen energy market.

What are the opportunities they have?

The geographical disparity exists between China's hydrogen demand centers in the east and its abundant solar and wind energy resources in the north.

This condition helps in developing green hydrogen production, for the following reasons:

- China's north and northwest regions such as inner Mongolia, Xinjiang, Gansu, and Qinghai have vast solar energy and wind energy resources that often exceed local electricity demand.

  Therefore in these regions, instead of curtailing the excess renewable energy, they are used for electrolysis for the production of green hydrogen and maximize the use of renewables.

- The surplus of cheap solar and wind power in the north reduces the cost of hydrogen production and green hydrogen is more competitive compared to fossil-based hydrogen.

- Government policies and subsidies are pushing investments in hydrogen electrolysis projects and thereby leading the developments towards expanding into large-scale hydrogen hubs.

For instance, China is developing large hydrogen production bases in inner Mongolia and Gansu where the renewables are abundant.

- The need to transport hydrogen from north to east pushes advancements in hydrogen pipelines, liquefication and carrier methods such as ammonia and methanol.

- Also, China is planning dedicated hydrogen pipelines similar to natural gas pipelines, improving supply efficiency.

  Since the transportation of green hydrogen comes with its difficulties, the country is focusing on localizing green hydrogen production in coastal demand centers. In recent times, green hydrogen production has been expanding in eastern coastal cities using offshore winds, hydro, and nuclear energy.

  Again the regional diversification helps in creating a balanced hydrogen ecosystem where both inland and coastal regions are able to contribute to green hydrogen supply.

- Tackling the production and consumption mismatch is another challenge, but China is going forward with their green hydrogen technologies and exports by strengthening its hydrogen infrastructure development. Also, it is observed that countries with plenty of cheap renewable energy can become major producers of green hydrogen and those with strong solar and wind energy, enough space for large energy projects, access to water, and good connections to big markets. These regions could become new hubs for hydrogen production and export, shaping the future of clean energy use worldwide.

- The opportunities are simply growing, the cost of hydrogen production equipment is dropping by over 10% per year making green hydrogen more affordable. The fuel cell system costs are falling, which is due to 33 new hydrogen energy policies across 24 provinces and cities, this demonstrates strong government commitment to fuel cell development. These policies include direct financial incentives, regulatory support and infrastructure expansion, these attributes have contributed to cost reductions.

Understanding the hydrogen industry and China's role in hydrogen diplomacy:

Experts' insight comments on this self-evident fact that the hydrogen industry is expected to be more competitive and less profitable than the oil and gas sector. Unlike fossil fuels, which are extracted and thus generate high profits. On the other hand, hydrogen is produced through conversion processes that can be set up in many locations. This means there are fewer opportunities for companies to dominate the market and earn large profits like those seen in the oil and gas sector. Note that the oil and gas sector contributes about 2% of GDP.

Since the cost of production of green hydrogen is decreasing, several companies and countries are expected to enter the market thereby increasing the competition. For China, the shift aligns with the strategy of becoming a global leader in Green hydrogen production. With its vast renewable energy resources, large industrial base and strong government support, China is investing heavily in hydrogen infrastructure. However, the increasing competition and lower profitability of hydrogen denotes that China's success in the sector is dependent on efficiency, innovation, and cost reduction rather than monopolizing resources like in the fossil fuel industry.

China is playing an important role in hydrogen diplomacy, especially through its leadership in green hydrogen production. It has mobilized nearly half of the global green hydrogen capacity in 2023. The majority of China's green hydrogen projects are focused on domestic demand, transportation and marine fuels, rather than exports. The Chinese government is also promoting green ammonia for coal-fired power plants, creating further local demand for green hydrogen.

Despite the leadership in renewable energy and electrolyzer technology, China faces financial and technical challenges in expanding its hydrogen market. A major obstacle is the lack of structured purchase agreements, which limits financial viability for large-scale projects. Nevertheless, if China can balance subsidies and economic sustainability, it has the potential to influence global hydrogen markets and redefine clean energy production.

Take away:

China's rock-solid commitment to green hydrogen is a crucial step towards its carbon neutrality goals. By harnessing renewable resources, expanding hydrogen infrastructure, and implementing strategic policies, the country is accelerating its low-carbon transition. While challenges such as cost reduction, supply chain logistics, and global competition persist, China's proactive approach positions it at the forefront of the global hydrogen economy. As the world watches this transformation unfold, there is a significant question: Can China's green hydrogen ambitions redefine the future of energy and set a precedent for other nations? Indeed!

Beyond Regulations How Indian Chemical Companies are Turning Carbon Neutrality into Opportunity

Vinodhini Harish

Introduction:

Are carbon reduction strategies a financial burden or a long-term investment for Indian chemical companies? This has become the everyday board discussion in the chemical sector. With so much importance and urgency, how is our country performing in this aspect? We have discussed just that in this article. The transformative shift of the chemical industry not only embraces carbon reduction strategies but also brings in plans that help in long-term profitability for the sector. Chemicals are leveraging multiple strategies and techniques such as low-carbon technologies, green chemistry, renewable energy integration and other future-proof operations. If you find the context interesting, you must read the article, as we have covered some interesting insights and case studies in this short read. Let's begin!

The Carbon Management Era for the Indian Startup Ecosystem

Businesses have implemented sustainability measures such as energy efficiency, supply chain optimization, and waste reduction thereby reducing operational costs up to 20% while improving resilience and competitive advantage. Carbon reduction management techniques involve streamlining operations and optimizing energy usage, which leads to significant cost savings. Therefore, the companies get lower utility bills and operational costs. The implementation of energy-efficient systems and practices helps the companies to reduce their reliance on non-renewable energy sources which are often more expensive and volatile in price.

Carbon reduction strategies involve eco-friendly practices and established carbon management programs, which offer a competitive advantage for the companies that implement them. Since regulatory compliance and risk mitigation are becoming more precise, it is observed that companies that integrate emissions data earlier in their growth have reduced the risk of penalties, reputational damages, and operational disruptions.

Another observation shows that businesses and companies which align their financial strategies with sustainability goals are more likely to win contracts, partnerships and government incentives. Also, it helps in

identifying high-carbon cost centres and optimizes resource efficiency.

The impact of the stringent global regulatory landscape:

There are massive changes observed in the global regulator landscape and they are becoming more stringent, as governments across the globe are mandating comprehensive carbon disclosures and the requirements are pushing companies to disclose their environmental, social and governance initiatives that include detailed greenhouse gas emission data.

For instance, the European Union's Corporate Sustainability Reporting Directive (CSRD) extends its obligations that require more companies to report detailed sustainability information. It also aims to standardize ESG reporting across all EU countries thereby making it easier to compare companies of their sustainability efforts.

Evolving sustainability laws and how they impact Indian chemical manufacturers:

Companies are expected to invest in emissions tracking, third-party verification, and ESG reporting and there are some challenges in the raw material sourcing to find eco-friendly alternatives as these sustainability rules restrict certain chemicals.

The major shift towards green chemistry and government policies promote bio-based and low-carbon solutions that drive R&D investments.
Furthermore, countries like China, the EU and the US have adopted advanced compliance with respect to the compliances and they force Indian firms to upgrade sustainability practices. Non-compliance with the sustainability laws can lead to restricted access to the export market.

European Sustainability Regulations (CSRD & ESRS) – Aarthi industries:

Aarthi Industries is a key exporter of specialty chemicals to Europe and is facing increasing pressure due to the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS). These regulations have mandated detailed carbon footprint disclosures and third-party verification of sustainability data that add to compliance costs.

The company has now invested in sustainable manufacturing practices, reduced water consumption and hazardous waste and ensured a greener supply chain that meets EU stringent regulations.

Key initiative as a part of motivation, they have organized a Sustainable business partner conclave. This fostered collaboration with stakeholders and about 74 business partners who were identified as "sustainable under the ESG parameters. About 100 participants from 74 corporates attended the conclave which enlightened the attendees and motivated them to implement sustainability, climate change, sustainable procurement and circular economy.

Supply chain and raw material disruptions: Deepak Nitrite:

Deepak nitrite has reduced their dependence on imported raw materials by increasing local sourcing. The company has also invested in backward integration by setting up its production facilities for key raw materials. This strategy has stabilized the supply chain while lowering costs and reducing vulnerability to global supply disruptions.

For instance, they have implemented Advanced Process Controls (APC) that lead to yield improvement and reduced energy usage. They are also working on renewable energy solutions to reduce their carbon footprint and have achieved a 95% TFS rating at the Hyderabad facility. They have also achieved reduced power intensity through advanced technology.

They have developed prudent raw material procurement and tighter inventory management and took proactive steps to ensure timely collection from the customers.

In their performance highlights on their website, they have mentioned their challenging operating conditions, where they observed that their customers continue to remain cautious and the geopolitical tensions are also intensified. Furthermore, the pressure on product realization has also intensified. Amidst these challenging conditions, Deepak Nitrite has navigated by maintaining its performance and leveraging their integrated business model.

Due to the implementation of new strategies, they were able to expand their portfolio and grow their volumes in high-value products while maintaining a steady demand for core offerings that led to a stronger product mix. The efficiency improvements and process enhancements have uplifted the production yields, helping the company to navigate market challenges.

The company has solidified their strategic partnerships and explored new markets after the new regulatory conditions that have ensured business resilience and helped in cost savings from optimized energy usage and better yields.

Sustainability push – Tata Chemicals:

The Indian government has been pushing companies to move towards green chemistry, and sustainability and mandating chemical firms to reduce emissions and shift towards bio-based products. TATA Chemicals has faced

such regulatory issues and has developed strategies to cut down emissions from their soda ash production.

They have invested in carbon capture technologies that cost them about 16.7 million euros to establish their first industrial-scale Carbon Capture and Utilization (CCU) Demonstration Plant. The facility helps in capturing CO2 emissions and purifies to produce high-purity sodium bicarbonate, which becomes a key raw material for pharmaceuticals and food production. The project aligns with the European net-zero carbon strategy and therefore received about 4.2 million grants from the Department of business, Energy and Industrial Strategy (BEIS).

The high-grade materials manufactured at TCE are the essential input materials used in the manufacturing of glass, food, chemical manufacturing and pharmaceutical sectors. Now this CCU project offers massive support to the growth of TCE's largest export product, which is high-grade sodium bicarbonate, which is then utilized for the manufacturing of food and pharmaceutical applications.

Growing demand for healthcare and the need of the global population to have access to healthcare is increasing the demand for this high-grade sodium bicarbonate and reports show that TCE already exports about 60% of the sodium bicarbonate to over 60 countries across the globe. Now this CCU project is expected to unlock further growth of their export markets.

Apart from this project, TATA chemicals have expanded themselves into bio-based chemicals focusing only on green alternatives to fossil-fuel-derived chemicals. This shift aligns with their broader sustainability goals and helps make the company a leader in sustainability-focused chemical production.

In addition to this, TATA Chemicals has also partnered with Agritech firms to develop innovative and sustainable fertilizers. These efforts will certainly aid in solidifying soil health and crop yield improvements while reducing the impact on the environment.

Therefore in recent times, the company has attracted investors who are focused on sustainability practices and those who reinforce their long-term growth strategy and securing funding for future green projects.

Increased global competition – SRF limited:

SRF Limited has been working actively on developing strategic initiatives to enhance their efficiency and competitiveness, they have started developing production practices by integrating automation and AI. This has contributed to improving operational efficiency and reducing material wastage.

They have limited their investments in low-margin commodity chemicals and expanded their R&D investments to focus on high-margin specialty chemicals to provide better returns and work towards long-term growth opportunities.

SRF's fluorochemicals Business was the first Indian chemical company to obtain ISO 14064-1:2006 certification for greenhouse gas emissions verification. The company has also installed a setup for continuous monitoring of air emissions and stack monitoring for utilities such as boilers and diesel generators.

They also strictly adhere to ISO 14001 environmental management systems and conduct Environmental Impact Assessments (EIAs) to ensure compliance with these regulations. SRF Limited has adopted cleaner production techniques to improve its energy efficiency and lower its emissions. They are also involved in fluorine-based refrigerants with lower global warming potential.

Other chemical companies:

Other chemical companies such as Gujarat Fluorochemicals, Chemical division of Reliance Industries are involved in the development of next-gen low-carbon refrigerants and fluoropolymers to align with the climate initiatives and production of green hydrogen and bio-based chemicals respectively.

These strategies have reduced their environmental footprint and have strengthened their market position.

Where we are now, and the path that lies ahead of us…

Indian chemical industry is experiencing the milestone phase where sustainability is no longer a compliance requirement but a strategic advantage. The country has already surpassed the climate targets and over 47% of the country's power generation is obtained from non-fossil sources! The momentum for low-carbon innovation has never been stronger and the Indian chemical companies have never been this involved in implementing carbon reduction strategies. There were multiple strategies and methods as discussed in the article, there were green chemistry, renewable energy integration, and carbon capture which were not only future-proofing but also strengthening their global competitiveness. As the international markets tighten the sustainability regulations, the country's proactive measures ensure it stays at the forefront of responsible manufacturing, securing investor confidence and long-term growth.

Green Science Alliance Made Bio based Biodegradable Lubricant from Waste Cooking Oil and Plant based Ingredients

KAWANISHI-CITY, Japan, March 11, 2025 /PRNewswire/ -- Environmental problems such as climate change, global warming, deforestation, extinction of species, water shortage etc… due to explosion of human population are becoming increasingly severe worldwide. The increasing amount of CO2 and plastic pollution is also a severe environmental problem which cause adverse effects.

One of goal for Green Science Alliance Co., Ltd. is to replace all the petroleum based chemicals with plant biomass based alternatives. For example, they have developed plant biomass based tableware, bottle, film, film-bag, nail cosmetics, nail tips, cosmetic container, 3D printed furniture, coating material, paint, glue, tooth brush, ball point pen, cellulose fiber, plasticizer etc… They are literally trying to make all chemical products from plant natural biomass, and not from petroleum, fossil fuel. And this time, they have developed lubricant from plant based ingredients and waste cooking oils.

An industrial lubricant is an important material to reduce friction between object surfaces in mutual contact so that heat generation can be suppressed when surface move to cause friction. It also has the function to transmitting forces, eliminates contaminants and debris from the surfaces, protecting against wearing, anti-tack coating, preventing corrosion and rusting, and gas sealing etc… In general, lubricants are made of a majority of base oil and a variety of additives to provide necessary characteristics such as anti-forming, optimized viscosity, anti-oxidant, detergent to keep cleanliness, anti-corrosion, anti-wear, pour point depressants, anti-scuffing effect to provide protective films on sliding metal parts and friction modifiers in order to reduce friction and wear etc… There are several types of lubricants and those are mineral oil, synthetic oil, solid lubricants, water based lubricants, bio based lubricants and greases.

Under these circumstance, Green Science Alliance made lubricant from waste cooking oil and plant based ingredients. And this environmentally friendly lubricants can be applied as metal cutting fluids, metal rolling process oil, gear oil, sliding surface lubricant, anti-rust oil, engine flushing oil, hydraulic oil for combine harvester, oil for chain saw and bar etc… There are some bio based lubricant in the market but one do not often find lubricants made from organic waste such as waste cooking oil. Thus, this type of products can be said sustainable lubricant too.

Source : PRNewswire

Sumitomo Chemical to Attend APEC 2025 Exposition to Exhibit its Compound Semiconductor Products for Next-Generation Power Devices

Sumitomo Chemical will participate in the Applied Power Electronics Conference (APEC) 2025 Exposition to be held in Atlanta, Georgia, United States, from Monday, March 17 to Wednesday, March 19, 2025. This event has been held annually in the U.S. since 1986, and brings together the latest products and technologies in the field of power electronics, which deals with technologies for controlling, converting, and supplying electric power, from all over the world.

Sumitomo Chemical will exhibit gallium nitride (GaN) substrates and high-purity GaN-on-GaN epitaxial wafers (GaN substrates with a crystalline layer of high-purity GaN formed on the surface), which are expected to be used as semiconductor materials for next-generation power devices. GaN power devices are expected to contribute to reducing the energy consumption of servers in data centers, where power consumption is increasing due to the rise of artificial intelligence (AI), as well as to improving battery power conversion efficiency and thereby extending the cruising range of electric vehicles (EVs).

Source : Sumitomo Chemical