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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

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Connecting the Chemical Industry Together !

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CHEMICAL MARKET

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

How you doin'? - F.R.I.E.N.D.S

The title itself is a very famous statement from the popular comedy TV series "Friends". I am using the context to say hi, how you doing? to everyone in the chemical industry, whether it be the process engineers, researchers, PR Departments, CEO or the decision makers of the company. Well, this is not a flirtatious statement but it is more inclined to introduce myself as the promoter of the portal chemicalmarket.net. I would love to get a hello back and let us know your concerns in the chemical industry and we will help you reach out to the masses. There are several things yet to work on but ultimate goal is to connect everyone in the chemical industry as our tag line says "Connecting the chemical industry together!"

Today, I will discuss with you a few things about how the industry is doing in India? The number of orders that are bagged by chemical companies in 2024 is growing and as India leaps towards being the manufacturing hub of the world, this number will keep on increasing whether it is in the pharmaceuticals sector, the chemical sector or the energy sector. For example, the amount of interest shown by customers from Anupam Rasayan has been around Rs. 8000 crores and have already added orders worth Rs. 4000 crores.

Recently, Vipul Organics Total Revenues in Q3 of 2023-2024 stood at Rs. 3761 lakhs, up 38.88% from Q3 of 2022-23. Total Revenues in Nine Months Ended 31st December 2023 stood at Rs. 11044.99 Lakh, up 7.59% from the Nine Months ended on 31st of December 2022. Commenting on the results, Mr. Vipul Shah, Managing Director, Vipul Organics Limited, said: "The green shoots in the economy are reflected in our results. We are back on our growth trajectory, post the economic shocks of COVID. In this quarter, we also lay the foundation stone for our new facility at Sayakha which will be revenue accretive from F.Y. 2025-26. While global macro-economic factors are still a concern, we are seeing a robust demand for our products in the domestic market. Our newer offerings in sectors like Paper and Textiles are seeing huge traction and we are hoping for orders in the coming quarters".

Godrej Agrovet reported consolidated revenues from operations of Rs. 7,426.3 crores in 9M FY24 as compared to Rs. 7,278.7 crores in 9M FY23, a growth of 2.0% year-on-year. Q3 FY24 Profit after tax* increased to Rs. 84.6 crore from Rs. 67.0 crore in Q3 FY23, a growth of 26.3% year-on-year. In Q3 FY24, the Company reported consolidated revenues from operations of Rs. 2,345.2 crores as compared to Rs. 2,323.5 crores in Q3 FY23.

Also a major change is happening in the geo-political world with regards to the petrochemical industry. According to Valina Tchakarova post on X (formerly Twitter), one of the most overlooked megatrends with serious geopolitical ramifications is that the US has not only become the top oil producer but also one of the greatest combined oil and gas exporters worldwide. And that means that the US has become a direct energy rival of Russia. As per reply from Vendata Chairman Mr. Anil Agarwal, India has the ability to produce low cost oil which can be as less as $10 per barrel. Currently, the cost ranges from $70 to $80 per barrel. According to him, higher domestic production will benefit the people of the country and will lead to more affordable gas cylinders, a lot of new jobs will be created and thus lead to a huge foreign exchanges reserves that is used to import oil will be saved and can be invested in infrastructure and development of the people. I would surely like to add here, that though it would lead to that for the short term, but the longer term objective should be to build electric vehicles infrastructure and hydrogen powered vehicles and trains. Out of the total amount saved by producing in India and saving foreign exchanges, some percentage of the savings should be used to build this infrastructure and invest in renewal energy. The amount of money that will be invested in building batteries for cars, battery mega packs, build solar and wind farms, thermal and hydra power plants which will ultimately be recovered in the long run due to its renewable nature.

Praj Industries is one such company which focuses on sustainable bio fuel. Hon Union Minister Hardeep Singh Puri recently inaugurated Praj's Sustainable Aviation Fuel (SAF) demonstration facility at its R&D Center in Pune. Praj has developed a proprietary technology to process agricultural feedstock for the production of SAF that can be blended with Aviation Turbine Fuel (ATF). The hard to abate Aviation Industry is one of the largest consumers of fossil fuels and also an emitter of greenhouse gases (GHG). According to the India Brand Equity Foundation 2023 report, the government has set a target to operationalize 1000 UDAN routes and to revive 100 airports by 2024. Thus, India is the third largest and fastest-growing civil aviation market in the World. The low carbon SAF has a significant role in helping India achieve its net zero goal targets by 2070.

On a side note, there are several exhibitions coming up soon. Paint India will start from 22nd Feb 2024 to 24th Feb in Mumbai, Maharashtra. Same dates Salt India is in Bhavnagar, Gujarat.

- Rajiv Parikh

MUMBAI PRICE TREND – 17.01.2024	
Organic & Inorganic Chemicals	Price (Rs/Kg)
Acetone	99+
Phenolic	99+
Sorbic Acid	400+
Proplene Glycol Tech	116+
Butyl Carbitol Oucc Tawan	152+
Butyl Carbitol Petronas	155+
Benzoic Acid Wuhan Youji	96+
Adipic Acid Haily	116
Acrylic Acid Sattelite/Sanmu	91
Butyl Cellosolve Lotte Korea Intact	154+
Cyclo Hexanone Tpcc Taiwan Intact	146+
Alphox 500	153+
MIBK	138+
Toluene	92+
Benzene	88+
Ortho Xylen	100+
M. Xylene	95+
IPA.	143+
Meg	57+
Deg.	73+
Bam	143+
Methanol	34+
MTO.	75+

NBA	112+
Ethyl Acetate	84+
N. Proponal	93+
Pottasium Carbonate Imp	83+
DCDA	178+
SBC	1585+
Soda Ash	1540+
Acid	53+
Butyl	111+
B Cell	157+
DA	129+
DMA 40%	57+
EDC	44+
Hexane	72+
MCB	74+
MEK	113+
MMA 40%	49+
N Benzene	86+
N Pac	105+
Octonol	158+
Styrene	109+
VAM	84+
C9	105+
C Hexanone	138+
I Butanol	115+
Formal	19/25+

Above prices are given in good faith by : **MR. HITESH C. GOSALIA**

Broker in Chemicals & Solvents

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Mob. : 9869131022 / 7977251683 / 9224340945

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We assume no responsibility for availability of products at quoted prices.

CHENNAI PRICE TREND – 19.01.2024

Inorganic Chemicals	No of Units Per Pack	Price (Rs/Kg)
Acid Slurry (Soft)	50 Kgs	118.00
Alum- Ferric	50 Kgs	19.00
Ammonium Bicarbonate	25 Kgs	25.00
Ammonium Bi Fluoride [sugar-grade]	50 Kgs	158.00
Ammonium Carbonate	50 Kgs	88.00
Ammonium Chloride	50 Kgs	24.00
Ammonium Nitrate	50 Kgs	30.00
Ammonium Phosphate (Mono)	50 Kgs	135.00
Ammonium Sulphate	50 Kgs	22.00
Antimony Trioxide	50 Kgs	950.00
Barium Chloride	50 Kgs	58.00
Bleaching Powder (33% Cl)	25 Kgs	14.00
Borax (Granular)	50 Kgs	72.00
Boric Acid (Tech.)	50 Kgs	104.00
Calcium Carbonate (Activate)	50Kgs	18.00
Calcium Carbonate (Precipitated)	50 Kgs	17.00
Calcium Chloride Lump 70%	50 Kgs	14.00
Calcium Chloride-Anhydrous	50 Kgs	24.00
Camphor Oil	200 Litres	135.00
Caustic Potash (Flakes)	50 Kgs	84.00
Caustic Soda (Flakes)	25 Kgs	40.00
Caustic Soda (Prills)	50 Kgs	82.00
Chromic Acid Flakes	50 Kgs	320.00
Chlorinated Xylene	25 Kgs	85.00
Copper Sulphate	180 Kgs	208.00
Di ammonium Phosphate	50 Kgs	34.00
Dioctylmalite	180 Kgs	82.00
Ferric Chloride (Anhydrous)	Naked	42.00
Ferrous Sulphate – Crystals	50 Kgs	16.00
Hydrochloric Acid	Naked	6.00
Hydrogen Peroxide 50%	50 Kgs	34.00
Hyflosupercell	22.7 Kgs	128.00
Litharge	50 Kgs	220.00
Lithopone B301(China)	25 Kgs	112.00
Magnesium Carbonate (Indian)	50 Kgs	130.00
Magnesium Sulphate	50 Kgs	18.00
Mercury	34.5 Kgs	7200.00
Napthaline Balls	50 Kgs	130.00
Nickel Chloride	25 Kgs	625.00
Phosphoric Acid (85% Tech)	50 Kgs	105.00
Potassium Carbonate (Powder)	25 Kgs	110.00
Potassium Carbonate (Granules)	25 Kgs	92.00
Potassium Nitrate	50 Kgs	148.00
Potassium Permanganate [Tech]	50 Kgs	170.00
Potassium Permanganate [Pure]	50 Kgs	200.00
Potassium Phosphate (Di)	50 Kgs	158.00
S.L.E.S	50 Kgs	53.00
Soda Ash Light	50 Kgs	32.00
Sodium Bicarbonate	50 Kgs	33.00
Sodium Bichromate	50 Kgs	158.00
Sodium Bisulphite	50 Kgs	45.00
Sodium Chlorite 50% (India)	50 Kgs	240.00
Sodium Chlorite 80% (India)	50 Kgs	280.00
Sodium Cyanide	50 Kgs	650.00
Sodium Fluoride	50 Kgs	150.00
Sodium Formate	50 Kgs	60.00
Sodium Hexameta Phosphate 68%	50 Kgs	128.00
Sodium Hydrosulphite [China]	50 Kgs	180.00
Sodium Metabisulphite	50 Kgs	39.00
Sodium Nitrate	50 Kgs	52.00
Sodium Nitrite (China)	50 Kgs	68.00
Sodium Silicate	Noted	28.50
Sodium Sulphate (Anhydrous)	50 Kgs	15.00
Sodium Sulphide 50-52% (Flakes)	50 Kgs	52.00
Sodium Sulphide 58-60% (Flakes)	50 Kgs	52.00
Sodium Sulphite 92%	50 Kgs	52.00
Sodium Tri polyphosphate	50 Kgs	101.00
Titanium Dioxide Anatase	25 Kgs	190.00
Titanium Dioxide (Rutile - R-902)	25 Kgs	253.00
Trisodium Phosphate	50 Kgs	36.00
Zinc Chloride Powder (Tech.)	50 Kgs	79.00
Zinc Oxide White Seal	50 Kgs	235.00
Zinc Stearate [Pure]	25 Kgs	175.00
Zinc Sulphate (Tech.)	50 Kgs	58.00
Organic Chemicals	**No of Units Per Pack**	**Price (Rs/Kg)**
Acetic Acid Glacial	35 Kgs	69.00
Acetone	160 Kgs	97.00
Benzene	196 Ltrs.	92.00
Benzyl Alcohol	200 Kgs	185.00
Bisphenol-A (Russian)	25 Kgs	180.00
Bisphenol-A (Russian)	170 Kgs	110.00
n-Butyl Acetate	165 Kgs	125.00
Butyl Cellosolve	195 Kgs	140.00
Camphor	25 Kgs	850.00
Cellosolve –Ethyl	195 Kgs	152.00
Chloroform	300 Kgs	30.00
Citric Acid (Anhy)	25 Kgs	85.00
Citric Acid (Mono)	25 Kgs	68.00
Cresote Oil	50 Kgs	64.00
Cyclohexanone	190 Kgs	145.00
D D Turpentine	200 Ltrs.	145.00
Diacetone Alcohol	195 Kgs	135.00
Diethylene Glycol	230 Kgs	85.00
Dimethyl Formamide	195 Kgs	95.00
Dioctyl Phthalate	200 Kgs	145.00
Di-Pentene	200 Kgs	92.00

EDTA Acid	25 Kgs	208.00
EDTA Disodium	25 Kgs	188.00
EDTA Tetrasodium	25 Kgs	188.00
Ethyl Acetate	185 kgs	100.00
Ethylene Dichloride	200 Kgs	60.00
Ethylene Glycol-mono	230 Kgs	63.00
Formaldehyde	65 Kgs	28.00
Formic Acid	35 Kgs	68.00
Formic Acid	250 Kgs	64.00
Hexamine – Tech	50 Kgs	100.00
n-Hexane	160 Litrs	64.00
Hydroquinone (Imported)	25 Kgs	850.00
Isopropyl Alcohol	160 Kgs	130.00
Isopropyl Alcohol (Refill)	160 Kgs	115.00
Maleic Anhydride	25 Kgs	110.00
Methyl Ethyl Ketone	166 Kgs	117.00
Methyl Isobutyl Ketone	160 Kgs	160.00
Methyl Isobutyl Ketone (Refill)	160 Kgs	150.00
Methylene Dichloride	250 Kgs	54.00
Methylene Dichloride (Refill)	250 Kgs	48.00
Mineral Turpentine Oil	50 Kgs	105.00
Monochloro Phenol	50 Kgs	120.00
Nitrobenzene	200 Kgs	105.00
Octanol (2-ethylhexanol)	160 Kgs	135.00
Oleic Acid	50 Kgs	135.00
Oxalic Acid (Punjab)	50 Kgs	74.00

Paraffin Wax (White)	50 Kgs	115.00
Para formaldehyde 91%	25 Kgs	115.00
Perchloroethylene	320 Kgs	105.00
Phenyl Liquid	230 Kgs	110.00
Phthalic anhydride	25 Kgs	115.00
Pine Oil 22%	200 Litrs	110.00
Pine Oil 40%	200 Litrs	190.00
Polyethelene Glycol 400	230 Kgs	115.00
Polyethelene Glycol 600	230 Kgs	130.00
Propylene Glycol	215 Kgs	125.00
Poly Aluminium Chloride	25 Kgs	36.00
Red Lead	50 Kgs	220.00
Renine	180 Kgs	72.00
Rosin	17 Kgs	100.00
Sodium Acetate	50 Kgs	32.00
Sodium Benzoate	50 Kgs	105.00
Sorbitol	250 Kgs	51.00
Stearic Acid (cosmetic)	50 Kgs	130.00
Styrene Monomer	185 Kgs	115.00
Terpeneol Perfumery	25 Litrs	260.00
Thiourea	25 Kgs	240.00
Toluene	200 Ltrs	98.00
Trichloroethylene	280 Kgs	100.00
Triethanolamine	210 Kgs	118.00
Vinyl Acetate Monomer	185 Kgs	115.00
Xylene Mixed	185 Kgs	98.00
O-Xylene	185 Kgs	110.00

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

M/S. CHEMICAL (INDIA) COMPANY

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1	CPhI North America	May 7-9, 2024	Pennsylvania Convention Center, Philadelphia
2	CPhI Barcelona	Oct 24-26, 2024	Fira Barcelona Gran Via, Spain
3	CPhI Middle East & Africa	Dec 10-12 2024	Riyadh, Saudi Arabia
4	CPhI China- Virtual CPhI	June 19-21, 2024	Shanghai, China
5	CPhI Japan	Apr 17-19, 2024	Tokyo, Japan
6	CPhI Korea	Aug 27 - 29, 2024	COEX, Seoul, Korea
7	CPhI India	Nov 26-28, 2024	Noida, India
MECS (Coating Show)			
1	Asia Pacific Coatings Show	Sept 11-13, 2024	Indonesia
2	Saudi Arabia Coatings Show	2025	Dammam Saudi Arabia
3	Middle East Coatings Show	April 16-18, 2024	Dubai World Trade Centre
4	Coatings For Africa 2024	June 19-21, 2024	Johannesburg, South Africa
DYE+CHEM			
1	Dye+Chem Morocco International Expo	TBD	Morocco
2	43rd Dye+Chem Sri Lanka International Expo	Feb 29 - 2 March 2024	Colombo Sri Lanka
3	Dye+Chem Bangladesh International Expo	Sept 4-7 2024	Bangladesh
4	44th Dye+Chem Brazil International Expo	July 10-12 2024	Brazil
Red Carpet Events			
1	Bangladesh Int'l Dyes, Pigments and Chemicals Expo	Oct 24-26, 2024	Dhaka, Bangladesh
Turkey (Arkim Group)			
1	InterDye Textile Printing Eurasia	Nov 27-29 2024	Istanbul, Turkey
2	Paint Istanbul TURKCOAT	May 8-10, 2024	Istanbul
3	Paint Expo Eurosia	Apr 09-12, 2024	Messe Karlsruhe
Other Exhibitions			
1	Paint India	Feb 22-24, 2024	Bombay Exhibition Centre, Mumbai
2	Expo Paint and Coating	Jun 27-29, 2024	Pragati Maidan, New Delhi
3	CIPI	TBD	Mumbai, India
4	Chemspec Europe	June 19-20, 2024	Germany
5	ChemUK Expo	May 15-16, 2024	NEC, Birmingham, UK
6	American Coatings Show	April 30-2 May 2024	Indianapolis
7	China Coat China	Dec 2024	China Import & Export Complex, Guangzhou
8	Interdye China	Apr 17-19, 2024	Shanghai, China
9	Paint Expo Germany	Apr 09-12, 2024	Messe Karlsruhe Germany
10	India Chem 2024	Apr-18-19 2024	Mumbai Exibition Centre, India
11	Water Expo 2024	Sept 10-12 2024	New Delhi
12	Inacoating 2024	July 30-Aug 1, 2024	JlExpo Kemayoran, Jakarta - Indonesia
13	Expo Paint & Coating	Sept 19-21, 2024	ICC Dhaka, Bangladesh

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Product Name	Qty	Grade
Geranium china distributor	1000 Kgs	NA
Details : i want to buy perfumery chemicals from china distributors		

Product Name	Qty	Grade
DI-ETHANOL AMINE, LIQUID	2000 Gallons	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Monoethanolamine, Liquid	60000 Kgs	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
MEA	96 Tonnes	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Boric Acid	3 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Reagent, Pyridine-Free	2 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Silver Nitrate,Cvs 0.1,Ampoule	2 Packets	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Indicator, Universal	10 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Glycerol	4 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Normal Heptane 99.5%	10 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Methanol 99.8%	30 Cans	Any
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Di-Methyl Disulphide, Liquid	5500 Gallons	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Cyanuric acid CAS No:- 108-80-5	15 Tonnes	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Malononitrile (propanedinitrile)	5 Kgs	Industrial
Details : Please quote the best price with lead time & COA.		

Product Name	Qty	Grade
Propylene Glycol	20 Drums	Industrial
Details : Barrier Fluid Properties:- DENSITY AT 15 DEG C: @20 C= 1.0362, Boiling Point, 185°C Viscosity:- @ 25 degC, 46mPas, Flash Point:- >100°C, Ignition temp:- 371°C, Description:- Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Dichloromethane	4 Cans	Industrial
Details : SIZE: 2.5 Liter Bottle PURITY - 99.8%, Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
ISO Propanol	25 Drums	Industrial
Details : Purity- ≥ 99.7%, Grade: 2-Propanol Analar NORMAPUR ACS, Reag. Ph. Eur. analytical reagent, Please quote the best price with lead time & COA/MSDS.		

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Product Name	Qty	Grade
2-Chloroethyl Ethyl Ether CAS No:- 628-34-2	200 Kgs	Industrial
Details : Please quote the best price with lead time & COA/MSDS, with packing details.		

Product Name	Qty	Grade
Mixed Salt Standard Solution	18 Cans	Industrial
Details : Please quote the best price with lead time & COA/MSDS. ASTM D-3230 Mixed Salt Solution.		

Product Name	Qty	Grade
Metal Cleaner	100 Kgs	Industrial
Boric Acid Crystal Pure	60 Kgs	Industrial
Manganese Sulphate	100 Kgs	Technical
Hydrofluoric Acid	50 Kgs	Technical
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.		

Product Name	Qty	Grade
Xylene A.R	10 Drums	Industrial
Details : ANALYTICAL REAGENT GRADE:- ASSAY-99.9% Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
Dimethylaminopropylamine (DMAPA) CAS Number:- 109-55-7	5000 Kgs	Industrial
Details : Mol Formula:- C5H14N2 Please quote the best price with lead time, Sample required & COA/MSDS.		

Product Name	Qty	Grade
Sodium Hypochloride	120 Kgs	Industrial
Details : Need Quotation asap		

Product Name	Qty	Grade
Hydrofluoric Acid	40 Kgs	Industrial
Details : Need Quotation asap		

Product Name	Qty	Grade
Boric Acid	40 Kgs	Industrial
Details : Need Quotation asap		

Product Name	Qty	Grade
Acetic Acid Industrial grade	40 Kgs	Industrial
Details : Need Quotation asap		

Product Name	Qty	Grade
CORRIUM Z-199	2	Industrial
Details : Please quote the best price with lead time & COA.		

Product Name	Qty	Grade
Mineral Hydrocarbon Oil	500 Tonnes	Industrial
Details : Parameters Required 0.810 to 0.820 Density 30 to 40 Flash		

Product Name	Qty	Grade
Perfume	10 Kgs	Industrial
Details : Please quote the best price with lead time COA & MSDS		

Product Name	Qty	Grade
Dye	10 Kgs	Industrial
Details : Please quote the best price with lead time COA & MSDS		

Product Name	Qty	Grade
Optical Brightener	10 Kgs	Industrial
Details : Please quote the best price with lead time COA & MSDS		

Product Name	Qty	Grade
Selenium dioxide CAS No:- 7446-08-4	25 Kgs	Industrial
Details : Please quote the best price with lead time & COA/MSDS.		

Product Name	Qty	Grade
TALL OIL	1 Tones	Industrial
Details : Please inform best price, also please share it's GC & lab analysis report & it's COA.		

Product Name	Qty	Grade
Methacryloyl Chloride CAS# :- 920-46-7	500 Kgs	Industrial
Details : Please share your best offer on basis FOR Ahmedabad along with the COA, delivery time, packing detail and payment terms.		

Product Name	Qty	Grade
Methacryloyl Chloride CAS# :- 920-46-7	500 Kgs	Industrial
Details : Please share your best offer on basis FOR Ahmedabad along with the COA, delivery time, packing detail and payment terms.		

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Product Name	Qty	Grade
Sodium Thiosulphate Powder	5 Kgs	Industrial
Details : Photo cleaning		

Product Name	Qty	Grade
Nateglinide API [ENA16381]	20 Kgs	Industrial
Paroxetine HCl Hemihydrate API	700 Kgs	Industrial
Flurbiprofen API	5 Tonnes	Industrial
Purified Water (Cas no:- 7732-18-5)	200 Ltrs	Industrial
Methanol (Cas no:- 67-56-1)	200 Ltrs	Industrial
HCL (Cas no:- 7647-01-0)	50 Ltrs	Industrial
Di-methyl Formmide (Cas no:- 68-12-2)	2 Kgs	Industrial
Copper(II) Acetate Mono Hydrate (Cas no:- 142-71-2)	5 Kgs	Industrial
Sodium Carbonate (Cas no:- 497-19-8)	25 Kgs	Industrial
Toluene (Cas no:- 108-8-3)	200 Ltrs	Industrial
2,3 Xylidine (Cas no:- 87-62-7)	25 Ltrs	Industrial
Ortho Chloro Benzonic Acid (Cas no:- 118-91-2)	50 Kgs	Industrial
Isopropyl Alcohol (Cas no:- 67-63-0)	200 Ltrs	Industrial
Dimethyl Sulphoxide (Cas no:- 67-68-5)	200 Lts	Indusr-trial
N-Methyl Piperazine (Cas no:- 109-01-3)	50 Ltrs	Industrial
Ofloxacin Q Acid (Cas no:- 82419-35-0)	50 Kgs	Industrial
Formic Acid (Cas no:- 64-18-6)	25 Kgs	Industrial
Formaldehyde (Cas no:- 50-00-0)	50 Ltrs	Industrial
Dichloromethane (Cas no:- 75-09-2)	200 Ltrs	Industrial
Sodium Borohydride (Cas no:- 16940-66-2)	25 Kgs	Industrial
Methane Sulfonyl Chloride (Cas no:- 124-63-0)	25 Ltrs	Industrial
Acetic Acid (Cas no:- 64-19-7)	50 Lts	Industrial
Hydroxylamine hydrochloride (Cas no:- 5470-11-1)	25 Kgs	Industrial
Erythromycin Base (Cas no:- 114-07-8)	25 Kgs	Industrial
Propionic Anhydride (Cas no:- 123-62-6)	25 Kgs	Industrial
Sodium Lauryl Sulphate (Cas no:- 151-21-3)	25 Kgs	Industrial
MDC (Cas no:- 75-09-2)	200 Kgs	Industrial
Stearic Acid (Cas no:- 822-16-2)	25 Kgs	Industrial
Acetone (Cas no:- 67-64-1)	200 Ltrs	Industrial
Ammonia (Cas no:- 7664-41-7)	50 Kgs	Industrial
Hyflow (Cas no:- 61790-53-2)	50 Kgs	Industrial
Activated Carbon (Cas no:- 7440-44-0)	25 Kgs	Industrial
Ethyl Succinyl Chloride (Cas no:- 14794-31-1)	25 Kgs	Industrial
Sodium Bicarbonate (Cas no:- 144-55-8)	25 Kgs	Industrial
Sodium Hydroxide (Cas no:- 1310-73-2)	25 Kgs	Industrial
Ethyl Acetate (Cas no:- 141-78-6)	200 Ltrs	Industrial
Erythromycin thiocynate (Cas no:- 231-723-1)	50 Kgs	Industrial
(4R)-3-[(25,5R)-5-(4-Fluorophenyl)-2-[(R)-[(4-fluorophenyl) amino] [4-[(trimethylsilyl)oxy]phenyl] methyl]-1-oxo-5-[(trimethylsilyl) oxy]pentyl]-4-phenyl-2- oxazolidinone (CAS NO:- 27277812-8)	500 Kgs	Industrial
(-)-1-[(4-Chlorophenyl)phenylmethyl]piperazine; (R)-1(p-Chlorobenzhydryl)piperazine (CAS NO:- 300543-56-0)	100 Gms	Industrial
2-[2-[4-[(R)-(4-Chlorophenyl) phenylmethyl]-1-piperazinyl] ethoxy]-acetamide (CAS NO:- 909779-33-5)	100 Gms	Industrial
Levocetirizine Dihydrochloride (CAS NO:- 130018-87-0)	100 Gms	Industrial
3-(Trifluoromethyl)-5,6,7,8-tetrahydro-triazolopyrazine Hydrochloride (CAS NO:- 762240-92-6)	2000 Kgs	Industrial
(3R)-N-(tert-Butoxycarbonyl)-3-amino-4-(2,4,5-trifluorophenyl) butanoic (CAS NO:- 486460-00-8)	2000 Kgs	Industrial
Carbonyl diimidazole (CAS NO:- 530-62-1)	2000 Kgs	Industrial
Details : Chemicals Required for Process development Lab Trials, More quantity required after test		

Product Name	Qty	Grade
Drums	2000 Drums	NA
Details : HDPE drums Capacity 200 ltr, 250 ltr, 300 ltr. Please reply at the earliest. Needed on recurring basis		

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Product Name	Qty	Grade
Bromoacetaldehyde Dimethyl Acetal CAS NO:- 7252-83-7	500 Kgs	Industrial
Details : We have the following requirement kindly send your best offer for the same with the lead time and specifications.		

Product Name	Qty	Grade
3-bromo-6-chloro-2-fluorobenzonitrile (CAS:- 943830-79-3)	1000 Kgs	Technical
Bicyclo[3.1.0]hexane-3-one (CAS:- 1755-04-0)	1000 Kgs	Technical
D-expoxone (CAS:- 18422-53-2)	1000 Kgs	Technical
3,5-Difluoroaniline (CAS:- 372-39-4)	1000 Kgs	Technical
Methyl piperidine-4-carboxylate (CAS:- 2971-79-1)	1000 Kgs	Technical
Details : Please Contact for more info		

Product Name	Qty	Grade
PyBOP (Cas no- 128625-52-5)	1 Tonnes	Industrial
Ethyl Pyruvate (Cas no:- 617-35-6)	1 Kgs	Industrial
Details : 1) We have a requirement of the below Chemical kindly quote your best. Pricing along With Recent batch COA and lead time. We need 100kg, 500kg & 1400kg. 2) We have a requirement of the below Chemical kindly quote your best pricing along With COA and lead time.		

Product Name	Qty	Grade
TRANS,TRANS-2,4-HEXADIENYL ACETATE (Cas no:- 1516-17-2) (Hs Code:- 29153900)	10 Tonnes	Chemical
Butyllithium 23% in Hexane (Cas no:- 109-72-8)	2 Tonnes	Industrial
Details : 1) Provide MSDS/Packing certificate. 2) Unit: butyllithium content base 2ton/month , (450L cylinder, 800L Cylinder). Could you give me an estimate of FCL, COA?		

Product Name	Qty	Grade
Anti-Foam/Defoamer	13 Tonnes	Industrial
EDTA 48% / CAS#: 6381-92-6	3 Tonnes	Industrial
Details : Required for Affluent Treatment Plant, about 30T-40T of 40% EDTA would be required per oiler for cleaning. Payment Terms: On Delivery		

Product Name	Qty	Grade
Methane Sulphonic Anhydride CAS NO:- 7143-01-3	30 Kgs	Industrial
Details : Please quote the best price.		

Product Name	Qty	Grade
5-Fluorocytosine CAS# :- 2022-85-7	500 Kgs	Industrial
Delivery: CIP MUMBAI AIR Descripiton:- Pls send best quote along with delivery period.		

Product Name	Qty	Grade
Manganese Dioxide (90%) CAS# :- 1313-13-9	12 Tonnes	Technical
Payment terms : 1 Month Description:- Please send best quote along with COA/MSDS, & 4 Kg Sample required for testing purpose.		

Product Name	Qty	Grade
1-Iodo-2,2-dimethylpropane CAS# :- 15501-33-4	500 Tonnes	Industrial
Details : 1. Quote us your best CIF Air (Shanghai, China) price. 2. Advise us the shortest leading time. 3. Attach your recent batch COA for quality approval.		

Product Name	Qty	Grade
Detergent Solvent "Solvesso 100 (C4 163-180 GOST 10214-78)	2000 Ltrs	None
Solvent 646 GOST 18188-72	90 Ltrs	None
Leads : 1. Technical documentation such as drawings, datasheets and etc./ if applicable 2. All applicable material certificates (COC , MTC, Calibration ,etc.,) 3. Exact or approximate packing information and HS codes. 4. Delivery term we prefer FCA or DAP Baku & for EXW term Pick-up Address. 5. Price offer should be valid 1 month. Other Techinical Details:- Color - transparent or yellowish Density at 200C - 0.860 gr./m3 Volatility (based on xylene) - 8 – 15 Sulfur content - 0.020% Ignition temperature (open crucible) - 270C		

Product Name	Qty	Grade
PeCeVis 100 PS // 39069090 // MBCC Group	1 Tonnes	Any
Leads : Broadways Chemtech		

Product Name	Qty	Grade
Potassium Chloride CAS#:- 7447-40-7	100 Tonnes	Industrial
Details : By product low grade.		

Global Grinding Fluids Market Size, Share & Trends Analysis Report 2024-2030, Featuring Benz Oil, Carborundum Universal, CASTROL, CGF, ETNA Products, Exxon Mobil, FUCHS, Sun Chem & TotalEnergies

DUBLIN, Jan. 24, 2024 /PRNewswire/ -- The "Global Grinding Fluids Market Size, Share & Trends Analysis Report by Type (Water-soluble, Synthetic), Application (Disk Drivers, Silicon Wafer, Metal Substrates), Region, and Segment Forecasts, 2024-2030" report has been added to ResearchAndMarkets.com's offering.

The global grinding fluids market size is expected to reach USD 905.6 million by 2030 and is projected to grow at a CAGR of 3.8% from 2024 to 2030, according to the study. This growth is attributed to the growing automotive industry worldwide. Grinding fluids are primarily used to cool and lubricate cutting tools and workpieces during grinding operations for producing different automobile parts. The high-speed processes generate heat, which leads to thermal damage and dimensional inaccuracies. By providing cooling and lubrication, grinding fluids help dissipate heat, reduce friction, and prevent tool wear to improve surface finish and dimensional accuracy.

Moreover, Original equipment manufacturers (OEMs) are conducting research and development activities for producing higher volumes of automobile components that lead to energy efficiency in vehicles. Grinding fluids aid in increasing the efficiency of machining processes, thus increasing the production volumes of those machines. As a result, they are expected to witness steady demand over the forecast period. In addition, Europe, in particular, has seen a surge in growth for automobile components on account of growing consumer demand owing to economic stability in the region.

According to the Society of Motor Manufacturers and Traders, the UK's manufacturing sector produced 775,014 cars, 101,600 commercial vehicles, and 1.5 million engines in 2022. Over 80% of the cars manufactured were exported to 130 countries worldwide. Thus, the aforementioned factors are driving the product market growth in manufacturing automotive and their parts over the forecast period. However, penetration of plastic components in the automotive industry has increased considerably over the past few years owing to their lightweight, robust performance, high corrosion resistance, and durability and efficiency. Similarly, the aerospace industry has witnessed a surge in demand for plastics due to their ability to reduce the aircraft power-to-weight ratio and enhance overall efficiency and performance of their engines.

In addition, using plastics in aircraft also offers them durability, improves their navigation ability, enhances their fuel economy, and extends their flight range. As such, plastics are increasingly used in military and defense aircraft and carriers. Polyetheretherketone (PEEK), polyamide-imide (PAI), and polytetrafluoroethylene (PTFE) are some plastics used in the aerospace industry. It is expected to impact the global demand for grinding fluids and their consumption to a certain extent over the forecast period.

Read the full report : https://www.researchandmarkets.com/r/5tach2

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Asia-Pacific Alternative Cathode Material Market Analysis Report 2023-2032, Featuring Mitsubishi Electric, Nippon Chemical Industrial, LG Chem & POSCO

DUBLIN, Jan. 24, 2024 /PRNewswire/ -- The "Asia-Pacific Alternative Cathode Material Market: Analysis and Forecast, 2023-2032" report has been added to ResearchAndMarkets.com's offering.

The Asia-Pacific alternative cathode material market (excluding China) was valued at $1.18 billion in 2023, and it is expected to grow with a CAGR of 6.96% during the forecast period 2023-2032 to reach $2.16 billion by 2032. The growth of the alternative cathode material market is anticipated to result from the increasing need for lithium batteries with enhanced energy densities. Moreover, the cost-effectiveness of alternative cathode materials is projected to contribute significantly to the further advancement of the alternative cathode material market.

The Asia-Pacific area is vital in determining the direction of energy storage solutions in the dynamic APAC Alternative Cathode Material Market. The industry is expanding significantly because to the growing requirement for renewable energy storage and the growing demand for electric cars. Important companies, especially those with expertise in sodium-ion and lithium-sulfur battery technologies, are putting themselves in a strategic position to benefit from the shifting energy market.

Prioritizing research and development expenditures with the goal of enhancing the efficiency and affordability of substitute cathode materials is crucial for companies. Innovation may be accelerated by cooperative efforts with research institutes and strategic alliances within the sector. Navigating the dynamic APAC Alternative Cathode Material industry and grabbing new opportunities requires being up to date on regulatory changes and industry trends.

Read the full report : https://www.researchandmarkets.com/r/ai4m6f

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Organic Peroxide Market Forecast Report to 2028: Rising Demand for Ketone Peroxide and Growing Use of Benzoyl Peroxide

DUBLIN, Feb. 1, 2024 /PRNewswire/ -- The "Organic Peroxide Market - Forecasts from 2023 to 2028" report has been added to ResearchAndMarkets.com's offering. The organic peroxide market is set for considerable expansion, driven by robust demand across various industry sectors. An increase in the application of organic peroxides in the rubber and plastics industries is propelling market growth. Specialized chemicals such as organic peroxides are integral to manufacturing processes, contributing unique characteristics leveraged in several end-user applications including coatings and adhesives, detergents, cosmetics, and more.

Among the types of organic peroxides, diacyl peroxide leads the market growth due to its critical role as a free radical activator in the production of polyvinyl chloride (PVC) and vinyl monomers. Its utility in producing large quantities of plastics and polymeric materials is a key factor in its prominence in the market.
Furthermore, the demand for ketone peroxide is ascending, particularly in the production of coatings and adhesives. The advantages of organic peroxides as curing agents for coatings are significant, facilitating the synthesis of coating resins and allowing for greater control of molecular weight and viscosity during production.

In the field of healthcare and personal care, benzoyl peroxide has established a strong market position, given its multifaceted properties that make it beneficial for treating acne, hair bleaching, and teeth whitening applications. The rising demand for coatings and adhesives has also been beneficial for the market, enhancing production in the automotive industry where organic peroxides are used in various components.

High demand for polymer production is another growth catalyst. Increased production of polymers necessitates the use of organic peroxides for polymerization processes, intensifying market demand. Concurrently, the burgeoning packaging industry is fostering demand for packaging films across a spectrum of product categories, further expanding the organic peroxide market footprint.

The Asia Pacific region, marked by its emphasis on consumer goods manufacturing, particularly from China and India, is anticipated to dominate the market during the forecast period. The expansion of the construction industry is also providing a boost to the regional market by escalating the need for paints and coatings.

Despite the positive outlook, the market faces challenges with regard to the storage, transportation, and handling of organic peroxides, given their highly corrosive and oxidizing nature. The emphasis on safety protocols and adherence to regulations by NFPA, Transport Canada, and the US DOT is crucial to mitigating these concerns.

Read the full report : https://www.researchandmarkets.com/r/t7qbb0
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Automation in Leading Chemical Industries:

Introduction:

Chemical manufacturing industries are facing numerous challenges, product complexities, and stringent environmental regulations. They strive to remain competitive in the difficult marketplace by increasing their operational efficiency at reduced costs. The advanced software systems and automation technologies enable horizontal integration of systems, and harmonization of processes while maintaining quality and production optimization. This article covers the automation technologies adopted by some of the leading market players in the chemical sector and the challenges of implementing the technologies.

"Siemens' software manages horizontal integration and harmonization amongst processes"

The Siemens OPcenter: The solution for production manufacturing in the chemical industry:

Chemical industries are facing challenges in their process of reducing costs, and increasing efficiency while maintaining high product quality. Siemens' Opcenter portfolio is a one-stop solution for all these problems. Here are a few sectors or ways of how it works in the chemical industry.

- **Production planning and scheduling:**

The Opcenter portfolio maximizes production efficiency by including advanced planning and scheduling tools which optimize schedules based on a few factors such as raw material availability, compatibility constraints, changeover, clean-up, equipment capacity, production constraints and so on. This algorithm ensures efficient utilization of resources while meeting the rising demand and minimizing lead times.

- **Batch management:**

Chemical industries involve batch production; thus the operations should be managed as batches. The integration with automation in batch management helps in the easy exchange of data with the shop floor. Siemens had developed a batch engine called SIMATIC BATCH. This batch engine facilitates the coordination and execution of batch processes in the production department of the chemical industries.

The batch engine performs functionalities such as defining, controlling and monitoring batch processes, such as recipe management, batch scheduling, equipment allocation, material tracking, batch reporting and so on.

With the aid of these technologies, new products can be quickly introduced into the actual production, and a graphical process flow helps the management to configure standard business processes into executable software.

- **Quality checking/ management:**

The operators are driven to do the right procedures as they are fed with electronic work instructions. These help in performing quality tests at the right time to identify quality issues and promptly perform product recalls.

The Opcenter solution connects with the actual plant automation systems and the digital twin of the plant. This immensely reduces the commissioning time.

Overall, Opcenter automation technology has increased the pace of the production processes while reducing the time to market. It has laid a bridge between the shop floor and the top floor and has improved manufacturing transparency and coordination.

Rosemount 628 Universal Gas sensors by Emerson Automation Solutions:

In July 2019, leading market player Emersion Electric Co. launched the universal gas sensor for manufacturing plants that aids in measuring carbon monoxide and oxygen depletion. The sensor has helped industries in optimizing processes, environmental monitoring, early detection of gas leaks, equipment malfunctions, process deviations and prevention of downtime. These factors have helped in saving pricey repairs, prevention of equipment damages and infrastructure.

Thanks to the power of wireless network technologies the sensors have potentially increased the toxic gas safety at the manufacturing sites.

The key advantage of using the sensor is its simplified installation and maintenance. The Rosemount 928 Gas monitor sensor is equipped with hot-swappable main components, which include the power module and the sensor itself. They are intrinsically safe and can be easily replaced without the help of any tools. Additionally, the parameters/ information are stored in the sensor and not in the transmitter, therefore the users can calibrate the sensors in a non-hazardous location and take it to the field for installation. This factor enhances personnel safety by cutting down their time spent in hazardous locations.

Continued on Pg 47

LYONDELLBASELL LAUNCHES PETROTHENE T3XL7420: A REVOLUTIONARY POLYMER COMPOUND FOR OPTIMIZED MANUFACTURING

HOUSTON, Jan. 23, 2024 /PRNewswire/ -- LyondellBasell (LYB), a global leader in the chemical industry, is proud to announce the release of a cross-linkable, all-in-one flame-retardant compound, Petrothene T3XL7420, which is expected to deliver considerable cost savings while streamlining manufacturing processes. This new product offering also improves the quality of end products for wire producers in the automotive and appliance industries. Based on customer demand and industry need, LyondellBasell designed this innovative compound to address the need to optimize production line speeds and enhance manufacturing efficiency.

Petrothene T3XL7420, is specifically formulated for use in Society of Automotive Engineers (SAE) primary wire applications, International Organization for Standardization (ISO) thin wall applications, and Underwriters Laboratories (UL) and Canadian Standards Association (CSA) appliance wire. Petrothene T3XL7420 offers several benefits that make it an attractive option for wire producers, including enhanced cure kinetics, increased stiffness for easier small gauge wire assembly and better barrier performance compared to other Petrothene XL.

"Developing innovative solutions to address the ever-evolving needs of our customers is an important aspect of how we operate and continue to grow our market share," said Palmer Giddings, vice president Polyolefins at LyondellBasell. "Providing cost effective and efficient solutions that are UL and CSA certified, gives us a market advantage for this one-of-a-kind solution."

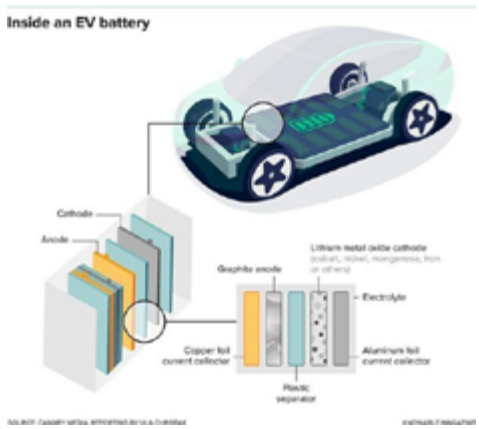
Petrothene T3XL7420 has undergone rigorous testing and certification processes to ensure its quality and reliability. With this latest development, LyondellBasell reinforces its position as a leading provider of innovative solutions for the wire and cable industry and expects this compound to become the product of choice for a wide range of automotive and appliance wiring applications.

Source : Lyondellbasell

POLYMER POWER: INCHEON NATIONAL UNIVERSITY RESEARCHERS ENHANCE THE SAFETY OF LITHIUM BATTERIES

GWANGJU, South Korea, Jan. 25, 2024 /PRNewswire/ -- Lithium-ion batteries are a widely used class of rechargeable batteries in today's world. One of the processes that can hamper the functioning of these batteries is an internal short circuit caused by direct contact between the cathode and anode (the conductors that complete the circuit within a battery). To avoid this, separators composed of polyolefins—a type of polymer— can be employed to maintain separation. However, these separators can melt at higher temperatures, and the inadequate absorption of electrolytes (essential for conveying charges between electrodes) can result in short circuits and diminished efficiency. To tackle these issues, several different methods have been proposed.

One such method is to apply ceramic coatings on the separators to improve the way they handle pressure and heat. However, this can increase the thickness of the separators, reduce their adhesion, and harm battery performance. Another technique is to use polymer coatings,



in a process known as graft polymerization. This involves the attachment of individual units (monomers) to the separators to give them the desired qualities.

Now advancing research, a recent study published in Energy Storage Materials now demonstrates successful graft polymerization on a polypropylene (PP) separator, incorporating a uniform layer of silicon dioxide (SiO2). The research results of the joint study conducted by a team of researchers, including Assistant Professor Jeongsik Yun from the Department of Energy and Chemical Engi-

neering at Incheon National University, were made available online on December 13, 2023, and featured in Volume 65 of Energy Storage Materials in February 2024.

Dr. Yun was motivated by the need for high-performance battery materials in electric vehicles to achieve longer driving ranges, an area he has been actively working on. Beyond improving battery performance, his goal is to ease consumer concerns about battery explosions, potentially influencing their decisions to embrace electric vehicles. According to him, "Battery explosions are frequently initiated from the melting of a separator. The commercial battery separator is made of polyolefins, a class of polymers which are vulnerable to heat. We therefore aimed to improve the thermal stability of the commercial separators by coating them with thermally robust materials such as SiO2 particles."

In this study, a PP separator was modified in several ways. Initially, it was coated with a layer of polyvinylidene fluoride, a chemical chosen to enhance electrolyte affinity and thermal stability, while also introducing grafting reaction sites. Then, the separator underwent grafting with methacrylate molecules, followed by a final coating with SiO2 particles. These modifications made the separator stronger and more resistant to heat, suppressed the growth of lithium dendrites, and helped improve the cycling performance.

Furthermore, the modifications not only preserved the energy storage of Li-ion batteries per unit volume, but also outperformed other coating methods in cell performance. This technique thus shows promise for creating robust separators and advancing the use of lithium-ion batteries in electric vehicles and energy storage systems.

In summary, this study presents a reliable method for creating an innovative and durable separator for lithium-ion batteries, potentially paving the way for a greener future!

Source : Incheon National University

SHIFTING ACHROMATIC COLORS: WHITE IS STILL KING, BUT BLACK GAINED IN POPULARITY, TAKING MARKET SHARE

- The old, standard automotive color wheel is changing
- White, black, gray, and silver are still dominant for non-commercial light vehicles
- Chromatic colors remain stable

In trend research released last fall, BASF stated that the traditional automotive color wheel was going through a transformation. The recently released 2023 BASF Color Report for Automotive OEM Coatings provides hard data to back up that trend.

Achromatic colors, which have always formed the foundation of automotive color, are experiencing a significant shift. While white continues to hold its position as the most popular color for light passenger vehicles, it has seen a notable decrease in market share. In contrast, black has surged in popularity, gaining market share at the expense of white.

Consumer preferences also vary across different regions. For example, in North America, there is a growing preference for lighter shades of silver over darker grays, while in EMEA, the trend leans towards darker shades. This regional variation adds an intriguing dimension to the evolving color landscape.

Meanwhile, chromatic colors have remained stable, with no significant changes in their total market share (19%). This category includes a range of colors such as blue, red, brown, and beige, which continue to maintain their popularity among customers.

EMEA: Diverse color tastes across nations; achromatic shades reign while chromatic favorites differ

The achromatic colors – white, black, gray, and silver – gained two percentage points in Europe, the Middle East, and Africa (EMEA). Car buyers shifted away from lighter colors of white and silver, to darker shades of black and gray. Premium cars had more effects pigments than entry and mid-price classes, showing the depth and creativity of color.

When European consumers chose colors, there were country-specific preferences. Germany loves blue (11%), Spain and the UK prefer red and orange (approximately 9%), France adores green (6%), and Italy shows its love for all the colors, with its share of chromatic colors being the largest among all five countries (30%).

“While the achromatic colors are still the most popular, each country appears to have its favorite place on the chromatic

realm," said Mark Gutjahr, global head of automotive color design for BASF. "Different color distribution could be seen in each of the major EMEA countries, and in general. Our customers, the automakers, have left a lot of room for individuality and creativity in car dealerships now, and car buyers are taking advantage of that."

North America: Lighter achromatic colors and more effects pigments show up

Like EMEA, achromatic colors in North America – white, black, silver, and gray – gained two percentage points overall. Consumers moved in a lighter direction after automakers retired several gray colors. Those were often replaced with shades of silver.

North America also had the highest share of red cars compared to other regions in 2023. However, red was not able to beat blue as the most popular chromatic color in North America.

"We're experiencing the same shift that other regions are seeing," said Elizabeth M. Hoffmann, color designer for North America. "The old standard color palette no longer applies. Lighter shades are getting more popular, taking market share from gray. More and more choices have effects pigments to give them intensity and excitement."

Asia Pacific: Increasing chromatic colors with more variations in effects

Continuing its leading position in the new automotive color palette, the share of chromatic colors in Asia Pacific was slightly up compared to 2022. The popularity of natural colors increased, especially green. Lighter colors became more popular, especially light grayish colors and silver.

Part of the reason Asia Pacific is more diverse in color is for the great variation of body types. Fresh shades can be seen in New Energy Vehicles (NEVs) especially more green and purple-influenced colors.

"As various new vehicles hit the roads, it is only natural that a more vibrant color palette would follow," said Chiharu Matsuhara, head of automotive color design for Asia Pacific. "With new automakers creating new vehicles in Asia, they are asking for something more than the usual color wheel. They want something bold and creative on their new designs, and young consumers appreciate those colors."

South America: Continues to be the region with the largest share of achromatic colors

South America historically has a conservative approach to colors, with a huge portion of achromatic colors in 2023. A total of 86% of new vehicles assembled in South America had either white, black, silver, or gray bodies, the most among all regions. The proportion of silver is also highest in South America.

With that kind of market, more and more automakers are choosing effects pigments to make the achromatic colors stand out. More cars were delivered with effects pigments in all body sizes compared to 2022.

"Colors aren't just colors any more. They are experiences," said Marcos Fernandes, director, BASF Coatings South America. "Whether it's a pearl or metal flake or other pigment, the effects make the color leap from the vehicle into the eyes of the beholder. It gives a certain flair that's becoming more and more popular."

The BASF Color Report for Automotive OEM Coatings is a data analysis from BASF's Coatings division based on global automotive production and paint application to non-commercial vehicles in 2023.

Source : BASF

AUTOSILICON RELEASES 24-CHANNEL BATTERY DIAGNOSIS IC FOR ELECTRIC VEHICLES AND ENERGY STORAGE SYSTEMS

SEOUL, South Korea--(BUSINESS WIRE)--Autosilicon Inc. has launched 24-channel Battery Diagnosis IC (BDIC) in January for high-capacity battery cells in Electric Vehicle (xEV) and Energy Storage System (ESS), following the release of 14-channel BDIC last year.

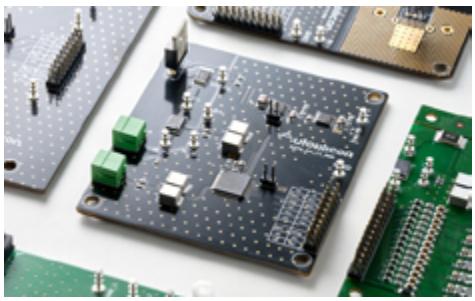
Autosilicon's BDIC improves the operating current, measurement accuracy, and volume compared to Electro-Impedance Spectroscopy (EIS) equipment, replacing multiple devices with a single chip. It allows the measurement of AC impedance in up to 24 battery cells and is expandable to battery module and pack.

In the recent xEV and ESS industry, a notable increase in claims due to battery defects has been observed. However, accurate analysis faces challenges due to the high costs and time-consuming disassembly of battery packs, as well as technical limitations in identifying defect causes.

The integration of BDIC into the Battery Management System (BMS) enables online monitoring of battery AC impedance information, allowing continuous tracking of status of all shipped battery cells and online analysis of accumulated battery data. Furthermore, BDIC aids in battery defect analysis, expanding to the examination of specific substances within the battery. With EIS technology, new standards will be set for the accurate detection of defective batteries. Addition-

ally, AC impedance measurement in hydrogen fuel cell enables the assessment and diagnosis of the internal condition, supporting cost-effective repairs and replacements of fuel cell battery stacks.

From 2026, certain US states will enforce regulations requiring electric vehicle



manufacturers to monitor and ensure the State of Health (SoH) of their batteries. EU plans to introduce a battery passport system in 2027 for managing battery information, electrochemical performance, durability, and SoH.

In response, Autosilicon is adopting EIS technology to gather more internal state data from battery cells. It has also developed an algorithm and software to measure the internal temperature of every individual cell using BDIC which was challenging to achieve with the conventional NTC temperature sensor. The release of BDIC enables online integration to the system, building Cloud BMS, and efficient battery management throughout the entire lifecycle for various purposes.

Autosilicon's 24-channel BDIC is being promoted to domestic and foreign xEV/ESS customers and battery cell manufacturers. Mass production is scheduled to begin in June 2024.

Source : Businesswire

CHEVRON LUMMUS GLOBAL AND HONGRUN PETROCHEMICAL SUCCESSFULLY COMMISSION THE WORLD'S LARGEST ALL-HYDROPROCESSING WHITE OIL UNIT

RICHMOND, Calif., Jan. 31, 2024 / PRNewswire/ -- Chevron Lummus Global LLC (CLG) today announced the successful commissioning of the world's largest white oil hydroprocessing unit for Hongrun Petrochemical (Weifang) Co., Ltd. in Weifang, Shandong Province, China

The new plant, which utilizes CLG's ISODEWAXING and ISOFINISHING technologies, consists of two units: a 500,000 metric tons per annum (MTPA) nameplate capacity API Group III lubricating base oil unit with the capability to produce industrial-grade white oil, and a 200,000 metric tons per annum nameplate capacity food grade white oil unit.

"We are proud to have worked with Hongrun on this project, and we have full confidence that this new unit will propel them to the forefront as a leading manufacturer of premium white oil and food-grade white oil products in China," stated Arun Arora, CLG's Chief Technology Officer. "CLG's hydroprocessing expertise, complemented by our commitment to innovation, once more proves to be instrumental in helping our partners achieve their production objectives."

White oil is a highly refined mineral oil that is used in a wide variety of applications, including pharmaceuticals, cosmetics, food processing and industrial lubricants. Food-grade white oil is a special type of white oil that is manufactured to meet the strict purity requirements of the food and beverage industry.

CLG's all-hydroprocessing technology route for base oil production outperforms all other processing schemes by selectively concentrating and isomerizing the molecular structure of wax into desirable isoparaffins. Using CLG's technology for base oils, refiners maximize product yields while producing superior product qualities.

Source : Chevron Lummus Global

INEOS STYROLUTION TO SHOWCASE SUSTAINABLE STYRENICS AT PHARMAPACK 2024

Frankfurt, January 22, 2024 - INEOS Styrolution, the world's leading styrenics supplier will be showcasing it's circular ECO product line for the Healthcare and Packaging industries at this year's Pharmapack tradeshow, January 24-25, 2024, in Paris France. Dr. Frank Eisenträger, Market Development Manager for INEOS Styrolution, is scheduled to present on new sustainable solutions made with circular polystyrene and high-performing styrenics materials, in addition to value chain partner Eco-inject exhibiting a medical product application at booth J41 using INEOS Styrolution's bio-circular NAS® ECO 21 BC70 (booth J41).

INEOS Styrolution has made significant strides in bringing new sustainable products to market, both based on innovative recycling technologies as well as integrating renewable bio-based solutions. Dr. Eisenträger's presentation will highlight how customers can use bio-attributed polymers to reduce carbon emissions without compromising product safety. With certified bio-circular raw materials, polymers can be produced to enable our customers to meet their lower carbon emissions targets. In fact, with certain styrenics from INEOS Styrolution, 100% emissions reduction can be achieved, depending on the applied methodology.

The company is known for offering sustainable plug-in "ECO" solutions for most of its product portfolio in addition to conventionally produced styrenics materials. A good example is the company's recently introduced ASA grade to address the growing market of small medical devices for home and hospital: Luran® S MED 797S SPF30, one of the first ASA materials in the market specifically for medical device housings, is also available as bio-circular version Luran S ECO MED 797S SPF30 BC40 with a 40% renewable content resulting in a carbon footprint reduction of up to 52%, all based on a mass balance process certified under ISCC PLUS.

There are a range of commercial healthcare applications based on sustainable ECO materials currently under development. One application example using INEOS Styrolution's bio-circular grade NAS® ECO 21 BC70[1].can be found at booth J41 during Pharmapack 2024. The British company Eco-inject will exhibit their sustainable single use autoinjector device for pre-filled syringes.

INEOS Styrolution also offers three dedicated HD (healthcare/diagnostics) styrenics packages for the healthcare industry:

1. Full-Service HD Package (risk class I and II applications): Grades come with a notification of change (NOC) term up to 36 months with a signed, long-term supply contract. Grades include Novodur® HD, Terlux® HD, and Luran® HD.

2. Essential HD Package (risk class I and II applications): Grades include 12 months notification of change (NOC) with a signed, long-term supply contract. These grades include NAS®, Zylar®, Styroflex®, Styrolux® and K-Resin®.

3. Standard Food Contact Package (risk class I applications only): These grades include general-purpose polystyrene, high-impact polystyrene, and standard ABS grades.

Source : Press Release

AESTHETIC MANAGEMENT PARTNERS LAUNCHES REVOLUTIONARY FRACTIONAL PLASMAGE FOR PRECISION NON-INVASIVE AESTHETIC SOLUTIONS

CORDOVA, Tenn., Feb. 1, 2024 / PRNewswire/ -- Aesthetic Management Partners (AMP) is proud to announce the launch of Plasmage – the first fractional plasma device in the market providing precise control to the provider to safely address crepey skin, wrinkles and delicate skin on the face and body as well as a variety of dermatological issues such as Xanthelasma, skin tags, and fibromas.

Plasmage can be used as a stand-alone treatment or in combination with other modalities offered by Aesthetic Management Partners. This versatility allows

clients to customize their treatment plan, leading to the best possible outcomes for each individual.

"In today's world, people want to look their best without undergoing invasive surgeries and long recovery times," says Erik Dowell, CEO at AMP. "We are excited to offer Plasmage as a non-invasive solution for our clients. It provides precise and controlled treatment for delicate areas, giving our providers the confidence to achieve their desired results more safely."

"We are pleased to partner with Aesthetic Management partners to bring Plasmage to the US market," said Attilio Grattacaso, CRO and Founder for Brera Medical. Plasmage marks a significant leap in the field of dermatology and aesthetics, empowering practitioners to provide cutting-edge treatments and elevate patient satisfaction.

"Plasmage technology has transformed my practice. As one of the first in the U.S. to offer this innovative solution, we've not only enhanced our medical capabilities but also attracted new patients seeking advanced treatments, such as non-surgical blepharoplasty. The positive outcomes we've observed underscore the value of staying at the forefront of medical aesthetic technology with AMP," says Anna Petropoulos, MD, Center for Classic Beauty, and a leading provider of Plasmage.

Source : Aesthetic Management Partners

AWINGDERM® LAUNCHES LASERMACH2, REVOLUTIONIZING HAIR REMOVAL SOLUTION, AT IMCAS WORLD CONGRESS 2024 IN PARIS

LBEIJING, Feb. 2, 2024 /PRNewswire/ -- In the morning of February 1st, Wingderm® announced the launch of Lasermach2 at IMCAS World Congress 2024 in Paris, which represents another revolutionizing breakthrough by Wingderm® in medical aesthetics industry.

Wingderm® founder and CEO, Will Wang, as the keynote speaker at the press conference, introduced Lasermach 2 to everyone. Lasermach 2 is a more efficient, comfortable, and intelligent solution for hair removal, it features 808nm and a combination of 755nm, 808nm and 1064nm wavelengths, providing laser hair removal treatments for for I-VI skin tones and almost all hair types. A 4cm² large spot size can treat efficiently, whole-body hair removal takes approximately 16 minutes in theory.

The lightweight dual handpieces allow for quick switching, without the need to plug or unplug, facilitating a more convenient operation. The upgraded cooling system improves the comfort of treatment, leading to higher acceptance.

Additionally, Lasermach 2 is equipped with intelligent system, Wingcloud® helps the clinic owners to manage intelligently and improve customer service. Detailed treatment data can be accessed by both operators and patients, ensuring continuous treatment, increasing patients' trust in operations.

"Over the years, the clinical results and financial benefits of Lasermach have been proven in the market. Wingderm® is dedicated to technological innovation and quality assurance, aiming to ensure practitioners and beauty seekers an excellent hair removal experience. Lasermach 2 has innovated and upgraded in many aspects, such as overall performance, clinical experience and technology application, showing better performance than the previous generation. I think Lasermach 2 will be a highly competitive laser hair removal device in the market for the next several years. " Said Will Wong.

On February 1-3, Wingderm® booth (H141) will showcase a range of devices, including Lasermach 2, Mesoskin and Renuva®. We warmly welcome you to visit us.

Source : PRNewwire

TORAY DEVELOPS TORAYCA™ M46X CARBON FIBER WITH HIGH TENSILE MODULUS AND ENHANCED STRENGTH

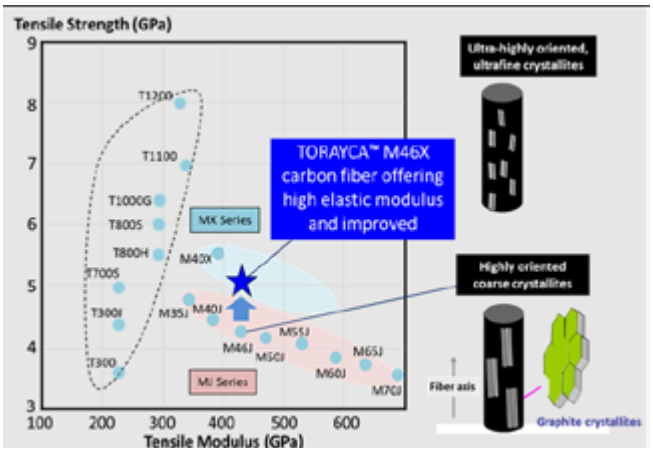
Tokyo, Japan, January 11, 2024 – Toray Industries, Inc. announced today that it has developed TORAYCA™ M46X carbon fiber. The new offering is around 20% stronger than others in the TORAYCA™ MX series while maintaining a high tensile modulus. Utilizing TORAYCA™ M46X reduces the weight of carbon fiber-reinforced plastic materials, lowering its environmental impact.

Typically, there is a trade-off between the tensile modulus and strength of carbon fiber. Boosting the strength while maintaining the modulus of carbon fibers with a tensile modulus exceeding 350 GPa presents technological challenges. However, the sporting and leisure goods market demands both qualities to maintain performance while utilizing less carbon fiber to lower the weight of molded parts.

Toray developed TORAYCA™ M46X by pushing the structural control technology envelope. Nano-level controls of the graphite crystallite structure inside fibers resulted in an ultrafine, ultrahigh orientation producing carbon fiber that is more than 20% stronger than conventional materials while maintaining its tensile modulus.

The company will also deploy TORAYCA™ M46X prepreg, with the resin matrix utilizing the proprietary NANOALLOY®1 microstructure control technology. The new product will significantly enhance compressive strength to boost stiffness while retaining strength, reducing the weight of finished products and broadening design flexibility.

Developing high-performance carbon fibers with a high tensile modulus exceeding 350 GPa began with TORAYCA™ M40 with graphitized yarn2.



Successors were TORAYCA™ M40J in 1984 and TORAYCA™ M46J in 1986 in response to robust demand for the high-modulus TORAYCA™ MJ carbon fiber series. Toray continued to develop technologies to balance the tensile strength and modulus. The TORAYCA™ MX series was created by applying technologies to control graphite crystallite structures and orientations3 inside fibers. The first offering in this series was the TORAYCA™ M40X, launched in 2018. This product has since earned a solid reputation as a high-performance carbon fiber and prepreg (a resin-impregnated intermediate base material) matching market requirements.

In line with its corporate philosophy of contributing to society by creating new value, Toray will continue developing new products that help transform the economy through the enhanced performance and processability of TORAYCA™ carbon fiber and prepreg.

Source : Toray

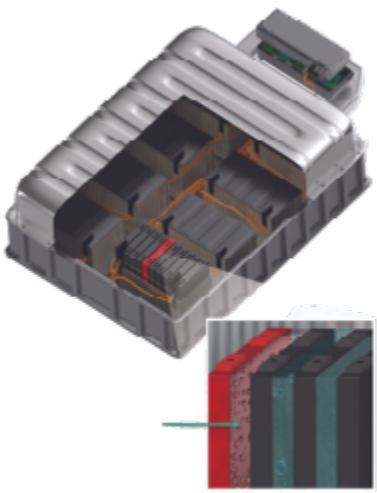
ARKEMA AIMS TO IMPROVE EV BATTERY SAFETY WITH FORANEXT® GASEOUS THERMAL BARRIER CONCEPT

Arkema, a leader in specialty materials, announced today that it intends to improve electric vehicle (EV) battery safety with the launch of the first-of-its-kind Foranext® Gaseous Thermal Barrier (GTB) line. This new GTB material is engineered to prevent battery thermal runaway propagation at the origin of battery fires.

The industry has acknowledged the need for manufacturers to continue to develop solutions like immersion cooling fluids to safely improve EV battery charge time. Immersion cooling technology can improve charge time and create an electrical insulation protecting against electric arcing and vibration dampening. Ignition is still a key risk for these fluids and systems.

Foranext® GTB is the game-changing material that can be added to

immersion cooling fluid technology to fight thermal runaway propagation. GTB is activated when a battery cell reaches abnormally high temperatures and forms a gaseous barrier around the cell, isolating it from the rest the battery. Gases produced during the thermal runaway process can ignite outside the vehicle, but the presence of GTB to the vented gases decreases ignition probability.



Arkema is the first company to suggest a gaseous alternative to a solid thermal barrier combining the excellent heat dissipation performance of immersion cooling and exceptional thermal insulation provided by Foranext® GTB only to achieve superior results.

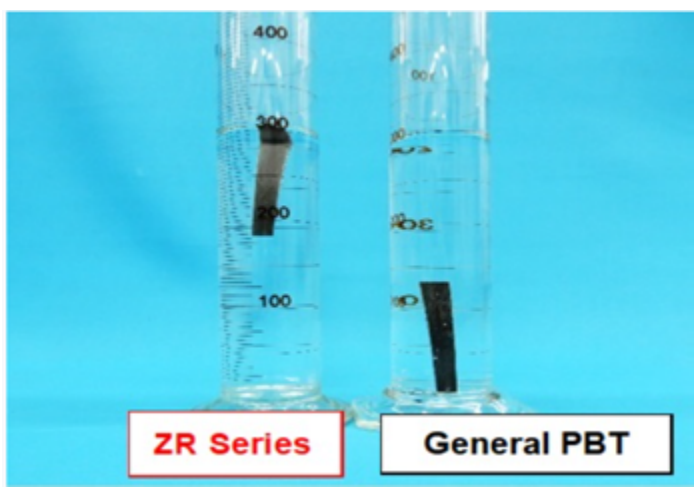
Foranext® GTB is a key product that supports Arkema's sustainable development strategy to address global needs. Arkema is committed to a 48.5% reduction in its GHG emissions for Scopes 1+2 by 2030 compared with 2019, as enabled by concepts like Foranext® GTB.

Source : Arkema

DEVELOPED "NOVADURAN ZR SERIES" FOAMING POLYBUTYLENE TEREPHTHALATE RESIN - ENABLES THE PRODUCTION OF MOLDED PRODUCTS WITH ULTRA-LOW SPECIFIC GRAVITY LESS THAN 1.0 IN A SIMPLE PROCESS -

The Mitsubishi Chemical Group (the MCG Group) has developed the ZR Series of NOVADURAN™ polybutylene terephthalate (PBT) resin, a foaming grade with ultra-low specific gravity, and began sample work in January 2024.

The ZR Series is a new grade developed by combining the MCG Group's formulation and proprietary manufacturing technologies. It is unique in that it itself has foaming properties while being a highly rigid fiber-reinforced engineering plastic.



Foam injection molding is widely recognized as a technology for reducing the weight of components, but foaming using chemical foaming agents has problems with decomposition residues and workability, and physical foaming with supercritical fluids has limitations, such as the need for special molding equipment. The ZR Series is a ground-breaking grade that solves these issues and enables the production of molded products with ultra-low specific gravity below 1.0 without the need for complicated work or special molding machines.

The ZR Series delivers the high chemical resistance and heat resistance of PBT resin, and has applications not only in the automotive field where there is strong demand for reduced weight to achieve better fuel efficiency, lower CO2 emissions, and better driving performance, but also in a wide range of other fields including those related to industrial materials, and electricity and electronics.

The MCG Group is committed to continuing to further enhance the functionality of NOVADURAN™ and develop technologies for compound products to offer high-value-added performance products and contribute to the realization of sustainable societies.

Source : Mitsubishi

LYONDELLBASELL LAUNCHES PETROTHENE T3XL7420: A REVOLUTIONARY POLYMER COMPOUND FOR OPTIMIZED MANUFACTURING

HOUSTON, Jan. 23, 2024 /PRNewswire/ -- LyondellBasell (LYB), a global leader in the chemical industry, is proud to announce the release of a cross-linkable, all-in-one flame-retardant compound, Petrothene T3XL7420, which is expected to deliver considerable cost savings while streamlining manufacturing processes. This new product offering also improves the quality of end products for wire producers in the automotive and appliance industries. Based on customer demand and industry need, LyondellBasell designed this innovative compound to address the need to optimize production line speeds and enhance manufacturing efficiency.

Petrothene T3XL7420, is specifically formulated for use in Society of Automotive Engineers (SAE) primary wire applications, International Organization for Standardization (ISO) thin wall applications, and Underwriters Laboratories (UL) and Canadian Standards Association (CSA) appliance wire. Petrothene T3XL7420 offers several benefits that make it an attractive option for wire producers, including enhanced cure kinetics, increased stiffness for easier small gauge wire assembly and better barrier performance compared to other Petrothene XL.

"Developing innovative solutions to address the ever-evolving needs of our customers is an important aspect of how we operate and continue to grow our market share," said Palmer Giddings, vice president Polyolefins at LyondellBasell. "Providing cost effective and efficient solutions that are UL and CSA certified, gives us a market advantage for this one-of-a-kind solution."

Petrothene T3XL7420 has undergone rigorous testing and certification processes to ensure its quality and reliability. With this latest development, LyondellBasell reinforces its position as a leading provider of innovative solutions for the wire and cable industry and expects this compound to become the product of choice for a wide range of automotive and appliance wiring applications.

Source : LyondellBasell

EVONIK LAUNCHES HIGH-PERFORMANCE PHOSPHATE METHACRYLATE VISIOMER® HEMA-P 100

- Transparent flame-retardant, free of methyl methacrylate
- Adhesion promoter for polar substrates
- Increases corrosion resistance on metal substrates

Darmstadt, Germany. Evonik introduces VISIOMER® HEMA-P 100 to the market, a phosphate methacrylate monomer that is nonmigratory, and its effects are long-lasting. Incorporated by polymerization, HEMA-P provides transparent flame retardancy, improves adhesion, and reduces corrosion. It is an effective adhesion promoter and anti-corrosive agent. VISIOMER® HEMA-P can improve dispersibility and act as a complexing agent.

VISIOMER® HEMA-P is versatile and may be used as a monomer for emulsion and solution polymers, vinyl ester and unsaturated polyester composites, acrylic adhesives, acrylic water proofing resins and cast PMMA. Applications

include coatings for wood, textiles and paper, direct-to-metal (DTM) coatings, structural adhesives, waterproofing roofs and parking decks and architectural cast PMMA.

VISIOMER® HEMA-P stands out due to its high monoester content which helps ensure maximum performance.

Unlike traditional additives, VISIOMER® HEMA-P provides flame retardancy without compromising transparency or mechanical properties.

VISIOMER® HEMA-P is also available in a low viscosity 70% solution in MMA for easier handling. VISIOMER® HEMA-P 70M and the new VISIOMER® HEMA-P 100 are available globally.

Source : Evonik

KEEL LABS UNVEILS FIRST-EVER T-SHIRT MADE FROM

SEAWEED-BASED KELSUN™ FIBER

MORRISVILLE, N.C., Jan. 29, 2024 /PRNewswire/ -- Today, Keel Labs announces the debut of the Kelsun T-Shirt – a sample developed in collaboration with Aditi Mayer – made from Kelsun™ fiber, the company's flagship product made from seaweed. Created to demonstrate Kelsun's plug-and-play potential in replacing conventional fibers used in the textile industry, this T-Shirt marks the first Kelsun garment made using industry-standard knitting machines. The Kelsun T-Shirt was created using a 70% Kelsun, 30% Cotton blended yarn, showcasing Kelsun's simple familiarity in a jersey knit – one of the most fundamental knit constructions. The Kelsun T-Shirt also features a screen print using Living Ink™'s Algae Ink, printing Keel Labs' signature brand element, the Spun K, on the T-Shirt's pocket.

The Kelsun T-Shirt was brought to life by climate activist and environmental educator Aditi Mayer. As a sustainable fashion thought leader, Aditi unpacks the relationships between fashion and the social threads that connect us to our clothing.

"With a brand's material choices alone being responsible for over half its total emissions, there's a dire need for the industry to revisit its chosen fibers. As someone who has long challenged the presence of fossil fuels in fashion and has opted for nature-based solutions instead, Kelsun's ability to create an option that integrates a renewable source, addresses fashion's plastics problem, while also eliminating pesticide use and agricultural land use is incredibly promising," said Aditi Mayer.

"This launch is about so much more than creating a T-Shirt—it's our mission come-to-life, offering the industry a product that can be produced at scale," said Keel Labs Co-Founder and COO, Aleks Gosiewski. "In partnership with Aditi Mayer, we're demonstrating to the fashion industry and consumers alike that next-gen material solutions are here, and they're able to be implemented in brands' and their partners' supply chains today."

In an industry that produces 21 billion tons of textile waste annually, Kelsun functions as an alternative to conventional, resource-intensive materials, like cotton, that fashion and textiles has long relied on. Kelsun is able to reduce water usage by 70X and land use by 100% when compared to cotton by utilizing seaweed, one of the world's most regenerative and renewable organisms. By translating the abundant seaweed supply chain into fiber production on industry-standard equipment, Kelsun is a drop-in solution for textile supply chains that delivers positive impacts to an industry in urgent need of mitigating its environmental impact.

Keel Labs functions as a platform for innovation, working to create new applications for Kelsun in apparel and accessories, as well as new product categories like automotive, home goods, furnishings, and interiors. The company's work is predicated on creating an accessible and utilitarian product with Kelsun: a widely applicable fiber that looks, feels, and performs like the materials the world knows, while taking the guesswork out of sustainably-created textiles.

"The Kelsun T-Shirt is fashion's latest proof point that biomaterials are ready to revolutionize the industry at large. We are excited to debut our first in-house garment created using Kelsun, with the Kelsun T-Shirt serving as the start of global product and brand launches to come," said Keel Labs' Co-Founder and CEO, Tessa Callaghan.

Source : Keel Labs

EVONIK'S NEW INFINAM® FR 4100L 3D PRINTING RESIN DESIGNED FOR MANUFACTURING TOUGH, DUCTILE, FLAME-RETARDANT PARTS

- Certified UL 94 V-0 flame retardancy rating at 3mm
- Fire, smoke and toxicity (FST) rated
- Liquid at room temperature
- Superior elongation at break

Marl, Germany. Evonik has launched a new photopolymer resin that is both flame retardant and mechanically durable when cured. Designed for use with DLP (digital light processing) 3D printers, INFINAM® FR 4100L is pourable at room temperature and can be printed and further processed to achieve a desired surface feel.

"INFINAM® FR 4100L is our latest product to address ongoing customer demand for a 3D-printable resin that can meet the unique requirements of aerospace, automotive, and electronics applications," says Vitor Lavini, head of Market Segment Photopolymers at Evonik's High Performance Polymers business line. "Fundamental to these market segments are parts that can

withstand contact with sparks, flames, and various types of fuels."

INFINAM® FR 4100L has a certified UL 94 flame retardancy rating of V-0 at 3mm thickness. Once cured, the resulting product features high elongation at break, good haptics, and an excellent surface finish that can be further machined and polished. It also exhibits a level of toughness similar to materials made of ABS (acrylonitrile butadiene styrene) plastic.

"Evonik is committed to developing innovative solutions that meet the needs of our customers," says Dominic Stoerkle, head of the Additive Manufacturing Innovation Growth Field at Evonik.

"INFINAM FR 4100L is a perfect example of our commitment to innovation and customer centricity. We believe the unique properties of this product will be well suited for 3D printed prototype and functional production parts in the most demanding aerospace, automotive, and other industrial applications," says Stoerkle.

Evonik's experts will be on hand to discuss this and other innovative additive manufacturing products at Booth P12 in Salon D during the 2024 Additive Manufacturing Users Group (AMUG) Conference, from March 10 to 14 in Chicago, USA.

Evonik's activities to support 3D printing technology are consolidated under the company's Additive Manufacturing Innovation Growth Field. The strategic goal is to develop and produce industrial, high-performance materials that are ready to use for all major polymer-based 3D printing technologies. As a result, the specialty chemicals company is advancing 3D printing as a large-scale industrial manufacturing technology across the entire value chain.

Source : Evonik

MERGERS AND ACQUISITIONS

AIR PRODUCTS AND ENECO SIGN POWER PURCHASE AGREEMENT FOR SOLAR ELECTRICITY IN THE NETHERLANDS

ROTTERDAM, Netherlands, Feb. 12, 2024 /PRNewswire/ -- Air Products, a world-leading industrial gases company, is proud to announce a significant step forward in its commitment to sustainability through the signing of a Power Purchase Agreement (PPA) for renewable energy with Eneco. This strategic agreement reaffirms Air Products' dedication to help address climate impacts and sourcing a substantial portion of its energy needs in The Netherlands from renewable sources.

Under the terms of this 10-year PPA, Air Products will source the majority of its current merchant business energy consumption for liquid nitrogen and oxygen production in The Netherlands from a reliable and renewable energy source. The renewable electricity will be generated at the Vlagtwedde Solar PV farm in the northeast of The Netherlands. The signed PPA will enable Air Products to reduce emissions equivalent to the carbon footprint of approximately 45,000 households over the duration of the contract.

This commitment represents an important milestone in the company's ongoing efforts to reduce its carbon footprint in The Netherlands and contribute to a more sustainable future. Last year, the company announced its plans to build Europe's largest blue hydrogen facility based in the Port of Rotterdam. This was preceded by the announcements of Air Products' plans for a renewable energy import terminal, and the first Rotterdam green hydrogen truck refuelling station. The 10-year contract reflects Air Products' long-term vision to work to accelerate the energy transition and continue to work to generate a cleaner future.

"This 10-year PPA is a significant milestone in our journey towards sustainability," said Harco van den Berg, Air Products' Business Manager Benelux. "We are excited to partner with Eneco, and we believe this collaboration will contribute to our goals of decarbonizing the industrial gases sector."

Eneco B2B Director Dick Velings added, "To tackle the challenge of climate neutrality, we need significantly more sustainably generated power. With this agreement, Air Products commits to using greener energy. This allows Air Products to become more sustainable and help their customers in many sectors do so as well. We're excited to work with Air Products in this effort."

Source : Air Product

MICROCAPS, LUZI, AND KAJAL PARTNER TO LAUNCH INNOVATIVE ETHANOL-FREE PERFUME

Kajal Perfumes Paris, Microcaps AG and Luzi AG have collaborated to launch the first ever ethanol-free perfume based on Microcaps' Perfume Pearls technology. The outcome of the successful partnership is Lamar Caviar by Kajal Perfumes Paris, a first of its kind luxurious ethanol-free fine fragrance.

Lamar Caviar Perfume d'Eau by Kajal Perfumes Paris is the result of a collaboration between Microcaps, a Zurich-based start-up offering the patented microfluidic perfume pearls technology, Swiss fine fragrance house Luzi and niche fragrance brand Kajal Perfume Paris. Thanks to a unique formulation, the new ethanol-free perfume encapsulates its fragrance oil into Microcaps' patented Perfume Pearls technology. The scent mist of perfume is released only upon application, when the alginate pearls break, preserving the scent until it is dispensed.

As the first-ever fine fragrance leveraging Microcaps' Perfume Pearls technology, this scent introduces four new features that might open the way to a new fragrance experience for consumers:

- A luxurious appearance paired with a unique application, thanks to the natural alginate pearls preserving the precious fragrance oil. Upon spraying, the pearls break, releasing the fragrance.
- A non-sticky, non-milky application, thanks to the lightweight and transparent microfluidic formulation of the perfume, that contrasts with many emulsion-based, ethanol-free perfumes currently available on the market.
- A natural, vegan, and ethanol-free formula based on alginate pearls, that offers a safe application without causing irritation to skin or hair.
- A protected formulation, thanks to Microcaps' patented perfume pearls.

"This perfume has the vision to introduce ethanol-free fine fragrance to a broader audience through its additional values. Innovative product features, including a natural formulation, safe application, and luxurious visuals, provide compelling reasons for health-conscious luxury perfume consumers to embrace this ground breaking innovation. These elements collectively make it an attractive choice for those seeking a unique and refined fragrance experience," said Microcaps in a statement.

Source : Premium Buauty

DOMO'S TECHNYL® PURE: A GAME-CHANGER IN HYDROGEN FUEL CELL COOLING CIRCUIT PERFORMANCE

DOMO demonstrates TECHNYL® polyamides effectively limit ion migration, helping to reduce the conductivity of fuel coolant

TECHNYL® PURE outperforms reference materials in H2 fuel cell cooling circuit performance, resulting in a sixfold increase in the ion filter lifetime

Ghent, February 13, 2024 - DOMO Chemicals, a global leader in the production of high-quality engineered materials and sustainable solutions, has made a landmark breakthrough with its TECHNYL® polyamides, drastically reducing coolant conductivity in hydrogen fuel cell stacks. This innovation, supported by comprehensive testing, establishes TECHNYL® as the premier choice for enhancing fuel cell stack performance and durability. Historically, polyamides (PA) were not considered optimal for cooling circuits in hydrogen fuel cell technology due to concerns about ion leaching and increased coolant conductivity. However, DOMO's latest research overturns these assumptions, demonstrating that TECHNYL® polyamides effectively limit ion migration, thereby maintaining lower coolant conductivity and extending system longevity.

"Our research reveals the 'polyamide paradox,'" says Maarten Veevaete, Director Application Center at DOMO. "Contrary to previous beliefs, TECHNYL® grades have a positive impact on the fuel cell cooling circuit. Their chemical interaction with the coolant reduces its conductivity, significantly enhancing system longevity and leading to a five to sixfold increase in the lifetime of ion filters. This effectively reduces maintenance requirements and associated costs," adds Maarten Veevaete. TECHNYL® PURE, a top-tier formulation designed to minimize ion leaching, consistently maintains lower coolant conductivity from the outset. This innovative material surpasses traditional solutions*, offering a more efficient and durable option for hydrogen fuel cell cooling loops.**

The TECHNYL® range for the fuel cell cooling circuit caters to specific customer requirements, offering a variety of grades including PA6 and PA66-based alternatives alongside the flagship TECHNYL® PURE. Discover the optimal solution for enhancing your hydrogen fuel cell cooling loop's performance and longevity by contacting the TECHNYL® team

Source : Press Release

TORAY CELEBRATES THE COMMISSIONING OF EXPANDED TORAYCA™ T1100 PRODUCTION CAPACITY AT ITS DECATUR, ALABAMA CARBON FIBER PLANT

DECATUR, Ala., Jan. 29, 2024 / PRNewswire/ -- Toray Composite Materials America, Inc., the leading manufacturer of advanced composites, celebrates the commissioning of the upgraded carbon fiber production line in its Decatur, Alabama, facility. The $15 million upgrade doubles the production capacity of the TORAYCA™ T1100 carbon fiber and adds critical redundancy to support the rising demand for defense applications. Toray's T1100 carbon fiber is vital to several United States Department of Defense (DoD) weapons systems and the Future Vertical Lift (FVL) program.

Congressman Dale Strong of the Fifth Congressional District of Alabama delivered the event's opening remarks and highlighted Toray's contributions to national defense. "I am thrilled to see Toray's commitment to investments in Decatur and North Alabama. Toray provides high performance carbon fibers which are critical to our defense industrial base and national security. I want to thank them for their investment in Alabama and wish them continued success," said Congressman Strong.

Major General Tom O'Connor, commanding general of the U.S. Army Aviation and Missile Command, participated as the featured guest in a policy discussion led by former Commander of the Army Material Command, retired General Paul Kern. The discussion focused on the importance of a strong domestic industrial base following the January 11, 2024 release of the Department of Defense's inaugural National Defense Industrial Strategy (NDIS).

Other esteemed guests included a cross-section of local and federal government, industry, and academia.

Toray has already begun production utilizing this new capability and are in the process of qualifying the new line with a number of customers. "Our team in Decatur worked tirelessly to advance the commissioning of our upgraded carbon fiber production line to support the strong demand from the defense industry. As the DoD prioritizes developing a resilient supply chain as part of the NDIS, Toray's focus is to ensure that we are doing our part to produce and increase material availability for various defense programs," said Dennis Frett, President of Toray Composite Materials America.

Toray is the largest carbon fiber and prepreg producer in the United States. The Decatur Plant has operation lines from precursor to carbon fiber and is one of three Toray manufacturing facilities. The company has other locations in Tacoma, Washington, and Spartanburg, South Carolina, producing precursor, carbon fiber, and prepreg. Toray's comprehensive portfolio of carbon fiber composite materials supports customers in aerospace and defense, industrial, and automotive industries.

Source : Toray Composite Materials America, Inc.

TOPSOE SELECTED AS TECHNOLOGY PROVIDER FOR PREEM'S RENEWABLE FUELS PLANT IN SWEDEN

Topsoe has signed a licensing and engineering agreement with Preem to provide its HydroFlex™ technology for renewable fuels production in Sweden.
Preem invests in revamping a major IsoCracker unit at its refinery in Lysekil, Sweden. The unit will utilize Topsoe technology and have a capacity of 1.2 million cubic meters per year (22,000 barrels per day) for the production of sustainable aviation fuel and renewable diesel. The expected start of production is 2027.

The partnership builds on years of cooperation between the two parties to produce renewable fuels, including at Preem's refinery in Gothenburg.
Topsoe, a global technology and solutions provider for the energy transition, has signed a licensing and engineering agreement with Preem, Sweden's largest fuel company, to produce Sustainable Aviation Fuel (SAF) and renewable diesel, using Topsoe's HydroFlex™ technology.

The demand for SAF is rapidly growing. According to the International Energy Agency's Net Zero Scenario, over 10% of fuel consumption in aviation by 2030 needs to be SAF to stay on course for net zero CO2 emissions by 2050. In 2022, the International Air Transport Association estimated global SAF production to make up only around 0.1% to 0.15% of total jet fuel demand.

At Preem's lysekil refinery in Sweden,

Topsoe's HydroFlex™ technology will be utilized in Preem's IsoCracker (a unit that breaks down molecules into lighter components. Topsoe will thereby supports Preem's long-term target of producing five million cubic meters of renewable fuels and achieving a climate neutral value chain by 2035. Once the revamped Lysekil refinery starts operating in 2027, Preem will become one of Northern Europe's biggest producers of SAF.

The partnership builds on years of cooperation with Preem to produce renewable fuels, including at Preem's refinery in Gothenburg. Together, Topsoe and Preem will work to increase production of renewable fuels, SAF included.

Elena Scaltritti, Chief Commercial Officer at Topsoe, said:

"Society needs a significant upscaling of renewable fuels for aviation. We're excited to take another step on the path to reduce carbon emissions in the transportation sector and aviation in particular. Together with Preem, we already have a proven track-record of delivering impactful results within renewable fuels production, and we're looking forward to continuing working with Preem on this important task."

Peter Abrahamsson, Director of Sustainable Development at Preem, said:

"We're thrilled about the revamp of Lysekil refinery, which is one of the most significant climate investments in Sweden. The demand for sustainable aviation fuels is increasing rapidly, and we are already in dialogue with several major airlines. With this investment, Preem takes another decisive step in the transition from fossil to renewable production. We're happy to continue working with Topsoe on increasing renewable fuels production."

What is HydroFlex™

With HydroFlex™, customers can convert various fats, oils and greases into drop-in renewable jet and diesel that meet all globally accepted specifications for these fuels. Topsoe's HydroFlex™ can be deployed in both grassroots units and revamps for co-processing or fully renewable applications.

Source : Topsope

EVONIK'S NEW TROGAMID® ECO IMPACT 75 OFFERS MANUFACTURERS HIGHER CLARITY, STRENGTH AND SUSTAINABILITY

- Features 88% optical transparency
- Great crack and break resistance based on ISO 179/1eA
- Reduces use of fossil-based feedstock by 30% based on mass balance approach

Marl, Germany. Evonik has just launched the impressively sturdy, TROGAMID® eCO Impact 75 polymer for injection molding. Ideal for a wide range of applications, from protective eyewear to electrical or mechanical housings, the new product has a high transparency of 88% and superior chemical, and crack and break resistance.

"TROGAMID® eCO Impact 75 is a great material for our customers, especially those looking to enhance the durability and safety in their unique eyewear products. We are excited to bring this innovative product to the market," says Christina Walkosak, head of Evonik's High Performance Polymers' Granules and Compounds product line.

Additionally, TROGAMID® eCO Impact 75 is produced using a mass balance approach that reduces the use of fossil-based feedstock by 30%.

"TROGAMID® eCO Impact 75 is an example of Evonik's long-term commitment to developing sustainable products that are both high-performing and future-oriented," says Florian Hermes, director of sustainability at Evonik's High Performance Polymers business line.

"Another great example would be our recently launched TROGAMID eCO myCX BC 100. This product is made with 100% green energy and 100% certified bio-circular feedstock, based on a mass-balance approach," says Hermes.

Evonik's experts will be on hand to present these and its entire range of TROGAMID® products at Booth C57, Hall 2, during the 2024 MIDO eyewear show, from February 3 to 5 in Milan, Italy.

With more than 50 years of experience in developing and manufacturing specialty and high-performance plastics, Evonik's High Performance Polymers business line offers a comprehensive product portfolio with innovative solutions for virtually any industrial application.

Source : Evonik

Continued from Pg 32

On the other hand, the sensors face similar challenges as any other sensors such as drifts, environmental interference, and cross-sensitivity, where the sensors respond to multiple gases present in the environment leading to false readings or inaccurate readings.

Automation solves complexity… Emerging digital technologies play a vital role in process integration, one of the leading market players ABB has observed that the power management systems and integrated process management systems cut down on energy usage by up to 10%.

BASF uses Machine learning - Prediction of chemical processes:

Researchers at BASF are after real process data to assist them in their work, thus they utilize machine learning to predict the solubility of complex chemical mixtures, dyes, aging catalysts and so on, and the technology has brought in concrete industrial benefits.

Machine learning technology helps in understanding or predicting the relevant properties even when there is an inclusion of a large number of components in the process.

BASF Automotive Refinish solutions – leveraging AI:

BASF is a major market player in the automotive paint industry whose products are highly regarded as they are in line with environmentally friendly standards. They offer high-quality products and optimize paint application processes which adds value to their service.

The company employs AI to enhance its automotive paint colour-matching processes. The conventional colour-matching processes are carried out by simple visual inspection and subjective judgment, which are prone to heavy human error. However, the BASF's Automotive colour matching AI employs machine learning algorithms that automate and enhance the overall process as the system is provided with a vast dataset of automotive paint colours, shades, finishes and substrates. These data are collected from real-time samples and automotive applications. Then the system performs color analysis with the existing database and it uses advanced image process techniques and spectral analysis. The researchers can distinguish between various colours as the system tags the colours with specific paint formulae, mixing rations, application techniques and other characteristics.

The automation technique has minimized the requirement for manual adjustments and reworks.

Conclusion:

Chemical manufacturers easily navigate a fast-changing consumer marketplace. The difficult marketplace with reducing margins encourages industries to please consumers who are inclined towards healthy living and sustainability. Therefore, the industries are trying to understand the environmental impact created by their facilities. Overall automation in chemical industries is highly appreciated as they have aided in safer manufacturing as it reduces human intervention in hazardous environments or prevents them from carrying out risky tasks.

Source : Vinodini Harish

Heubach Showcases Sustainable Innovations at Home & Personal Care Ingredients (HPCI) India 2024

- Discover how Heubach's sustainable solutions are helping the home and personal care industry go green.
- Uncover Cosmenyl® S 100, our latest range of sustainable & biodegradable pigment preparations.
- Learn about Ultrazur (Ultramarine Blue) grade for personal care applications.

Mumbai, India, January 16, 2024 - Heubach, a leading provider of diversified dyes, organic and inorganic pigments, and pigment preparations (aqueous dispersions and granules based on pigments), proudly unveils a dynamic array of innovative products at HPCI India in Mumbai.

Discover Sustainability in Color: Heubach is dedicated to championing sustainability, and this commitment is the driving force behind our portfolio development.

The color solutions we offer in form of our pigment dispersions not only illuminate the world but also meet the highest standards of quality and safety. With our modern production facilities and processes, we actively contribute to the conservation of natural resources. Environmental considerations guide the evolution of our existing products and the creation of new ones.

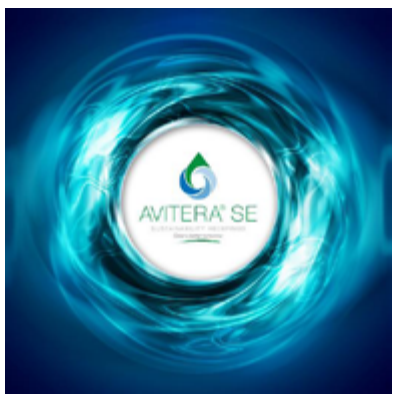
Introducing Cosmenyl® S 100: Our focus on sustainability takes center stage with the introduction of Cosmenyl® S 100, a revolutionary range of sustainable pigment preparations in aqueous dispersions. Crafted from inert inorganic pigments and enhanced with readily biodegradable additives, this product range offers earthy, warm shades. Ideal for applications in home care, including laundry detergents, and personal care products such as soaps and toothpaste.

Ultrazur inorganic grade for personal care applications offers a high quality and compliant product. The Ultrazur HGIN62 grade is a highly stable Ultramarine Blue that is EU Cosmetic Directive and US FDA compliant for cosmetic applications. Join us at HPCI India 2024 to explore and engage with our experts at Booth I4, Pavilion 2, Jio World Convention Centre, Mumbai. Delve deeper into the world of sustainable color solutions by Heubach!

Source : Press Release

Archroma makes sustainable dyeing more Economically viable with the introduction of AVITERA® SE Generation Next

Pratteln, Switzerland, 31 January 2024 - Archroma, a global leader in specialty chemicals towards sustainable solutions, has made its revolutionary AVITERA® SE technology accessible to more brands and mills with the launch of AVITERA® SE GENERATION NEXT for more cost-effective sustainable dyeing of cellulosic fibers and blends.



With an improved cost-to-performance ratio for new dark and extra-dark shades, the extended AVITERA® SE GENERATION NEXT range helps mills produce differentiated end articles that comply with the environmental requirements of leading brands and retailers while increasing yield, improving productivity and reducing processing costs.

"AVITERA® SE has colored the world's best clothing brands for more than a decade. AVITERA® SE GENERATION NEXT is a next-level solution that delivers the same exceptional environmental benefits while helping fashion and textile companies sustain their financial viability," Dhirendra Gautam, Vice President Product Marketing and Strategy, Archroma Textile Effects said.

Dyeing darker shades has traditionally been more challenging and costly, calling for higher dye concentration, increased water and energy use, and additional steps or re-dyeing to achieve a uniform color. Darker shades also tend to fade more quickly than light-colored fabrics, especially when exposed to sunlight and repeated home laundering.

"We have a taken a huge leap forward to make it possible to produce consistent and long-lasting dark and extra-dark shades in a more sustainable way at a total cost that is more comparable to traditional cellulosic dyeing technology," Dhirendra continued.

With high-speed low-temperature wash-off, high process reliability and excellent reproducibility, AVITERA® SE Generation Next allows mills to achieve water and energy savings of up to 50% and to slash CO2 emissions and effluent discharge by up to 50% as well. It can also increase mill output by up to 25% or more. The dyes are free from arylamines, including PCA[1], and offer excellent fastness properties, retaining their vibrant colors through repeated home laundering and exposure to light,

perspiration and chlorine.

Three new and improved dark colors have been added to the AVITERA® SE range, providing access to more color combinations across a wide color range with top color consistency:

AVITERA® BLACK PEARL SE: A greenish-cast black dye with high color consistency that can be used to correct metamerism.

AVITERA® BLUE HORIZON SE: A deep blue element with good light fastness in medium to deep shades, as well as high oxidative fastness and high resistance to nitrogen oxides (NOx) in the atmosphere.

AVITERA® NIGHT STORM SE: A new navy shade with a greenish cast and strong build up. It is recommended for dyeing the deepest navy and combination shades.

AVITERA® SE set a new benchmark for sustainability in the textile industry when it launched in 2010. The range's color palette has been significantly expanded over the years, while performance has improved and greater cost savings have been made possible through recipe optimization and added environmental benefits. AVITERA® SE GENERATION NEXT, the fourth generation of the revolutionary dye solution, adds dark and extra dark shades for next-level economic sustainability.

Source : Press Release

Pevalen™ Pro 100: Perstorp's Innovative Leap towards more sustainable Non-Phthalate Plasticizers

Malmö January 30, 2024 - Leading specialty chemicals innovator Perstorp has launched Pevalen™ Pro 100, marking a new era in PVC plasticizing technology. The new grade of Pevalen features 100% renewable carbon content based on mass balance, applying chemical and physical traceability. By factoring in the biogenic CO2 uptake[1] from its renewable raw materials, Pevalen Pro 100 offers a product carbon footprint reduction of approximately 80% relative to its fossil-based equivalent from cradle to Perstorp gate.

Pevalen Pro 100 is a significant advancement in non-phthalate plasticizers, merging high performance with sustainable sourcing. It sets a new benchmark in the industry of flexible PVC by offering a solution that is not only 100% renewable-based but also does not compromise on performance or safety. Pevalen Pro 100's development is a testament to Perstorp's dedication in materials chemistry and proactive approach to environmental stewardship, ensuring superior performance in a wide range of PVC applications.

Key features of Pevalen Pro 100 are:

- Fully based on mass-balanced ISCC PLUS-certified raw materials.
- Low carbon footprint to reduce CO2 emissions throughout the value chain.
- Drop-in replacement for easy adoption in formulations.
- True non-phthalate plasticizer.
- High plasticizing efficiency enabling faster processing and requiring less material and energy.

Linda Zellner, Innovation Director at Perstorp, comments: "We know that PVC can be a valuable resource, if it is made, used and disposed of thoughtfully. Flexible PVC is incredibly useful and would be hard to replace. Plus, it's a material that already offers excellent recyclability if produced in the right manner and with the right ingredients. The launch of Pevalen Pro 100 is a big milestone to contribute to this journey. It delivers greater durability using less material, lasts longer and also offers a significantly better environmental profile."

At the core of Pevalen Pro 100's development is its innovative chemical composition, designed to deliver high performance without the use of phthalates.

The product's high plasticizing efficiency and low volatility makes it an ideal choice for manufacturers seeking environmental responsibility and technical excellence in their PVC products.

''When Pevalen was first launched in 2014 as a premium performance alternative to phthalates, we already had intentions to continue developing the product and add grades with better environmental credentials," says Martin Hansson, Business Manager Plasticizers at Perstorp. ''This became reality in in 2019 when Pevalen Pro 36 was launched. Now we are proud to lay out the last piece of the puzzle and complete the product range with Pevalen Pro 100."

Pevalen Pro 100, along with Perstorp's other Pro-Environment products, is ISCC PLUS certified. This certification provides companies, brand owners and consumers with the assurance that high sustainability requirements are met. It means that all renewable and recycled raw materials used are ISCC certified in all parts of the value chain all the way back to the point of origin. Every customer of Pro-Environment products receives information about the product carbon footprint.

The launch of Pevalen Pro 100 respondsto the increasing demand for sustainable materials that offer both a low carbon footprint, as well as an improved eco-toxicity profile and safer handling. It reflects Perstorp's continuous drive to lead the chemical industry toward more sustainable solutions without compromising quality or performance. Pevalen Pro 100 represents a significant step forward in our journey toward delivering sustainable, high-performance chemical solutions.

Source : Press Release

LANXESS and IBU-Tec to Develop Iron Oxides for LFP Battery Material

- Collaboration aims to improve performance of LFP cathode material
- Reduced carbon footprint of batteries through use of local raw materials
- Focus on European value chain for LFP batteries

CologneJanuary 23, 2024 Specialty chemicals company LANXESS and battery materials manufacturer IBU-tec advanced materials have entered into a research cooperation in the battery sector. The goal of the two German companies is to develop innovative iron oxides for the production of cathode material for LFP batteries and thus increase the performance of this battery type. The companies aim to optimize the electrochemical properties of LFP batteries, such as energy density, charging speed and number of charging cycles.

More and more car manufacturers are increasingly relying on LFP (lithium/iron/phosphate) batteries for their e-vehicles - especially for volume models. Compared to NMC (nickel/manganese/cobalt oxide) and NCA (nickel/cobalt/aluminum oxide) cell chemistry systems, LFP technology offers cost advantages of up to 50 percent and promises safer use, as the system makes the batteries virtually impossible to ignite.

Strengthening European value chains

The demand for LFP in Europe is expected to grow by 20 percent per year until 2030. So far, however, this demand has been met almost exclusively by non-European suppliers. With their development, both companies aim to contribute to the establishment of an independent, robust value chain in the European LFP battery market, while at the same time reducing the carbon footprint of batteries.

IBU-tec, based in Weimar, Germany, is currently the only European manufacturer of LFP cathode material. LANXESS operates the world's largest plant for the key raw material iron oxide in Krefeld-Uerdingen. The company has almost 100 years of experience in developing this material and can supply iron oxide particles for LFP batteries in the required size, purity, morphology and quantities. Michael Ertl, Head of the Inorganic Pigments business unit at LANXESS, said: "As IBU-tec is currently the only European manufacturer of LFP cathode materials, the company is the ideal partner for us to develop the new material, which is a key component for batteries in e-cars and stationary energy storage systems. This is an important contribution to sustainability and the development of a European value chain in the field of battery materials."

Jörg Leinenbach, CEO of IBU-tec, said: "With LANXESS, we are gaining one of the largest, globally positioned chemical companies as a strong partner in the battery sector. With the joint product development we will combine our expertise and together we will drive the development of the European LFP battery market and establish an independent value chain.

We see this cooperation as an important step towards opening up the market. IBU-tec will inform about further material developments in the battery sector with new application possibilities in January."

LANXESS: Wide range of solutions for electromobility

In addition to key ingredients for LFP precursors, LANXESS offers many other solutions for electromobility and the battery industry, including raw materials for electrolytes, battery coolants, flame retardants for plastic components in electric vehicles and charging infrastructure, and orange dyes for coloring high-voltage components.

Source : Lanxess

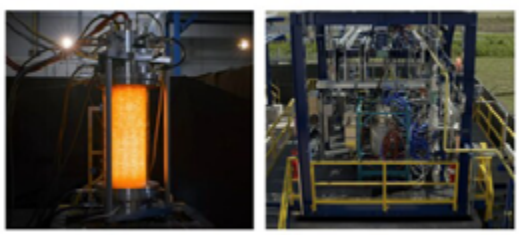
Syzygy Plasmonics Announces its Industrial Ammonia e-Cracking Cell Passes Qualification Testing and is Available for Order, Produces Hydrogen from Ammonia and Light

HOUSTON, Jan. 25, 2024 /PRNewswire/ -- Syzygy Plasmonics announced today that the world's first light-powered reactor cell for industrial chemical reactions has met initial performance targets and is now available for order in stacks designed to produce up to 5 tons of hydrogen per day. Syzygy has completed more than 1,500 hours of testing of its Rigel™ cell to produce hydrogen from ammonia. Testing of the first-of-a-kind 200 kg/d light-powered ammonia e-cracking cell began in late 2023 and is ongoing.

Climate goals in energy importing regions like Asia and Central Europe are forcing importers of liquified natural gas (LNG) to look for lower-carbon energy carriers. Many of them are turning to low-carbon ammonia as a solution. A portion of that imported ammonia will be cracked to produce hydrogen for hard-to-abate sectors like power generation and steel production. Conventional thermal ammonia cracking is energy intensive and emits NOx when ammonia is burned as part of the process.

Syzygy has pioneered a new technology that harnesses the energy from ultra-high efficiency artificial lighting to e-crack ammonia, removing the need for combustion. When powered by renewable electricity, Rigel cell stacks are designed to deliver no-NOx hydrogen from low-carbon ammonia.

"The testing at our Houston facility is going exceptionally well," said Syzygy CEO Trevor Best. "We're ready to deliver 5-tons-of-hydrogen-per-day projects today.



In 2025 we'll be ready for 10-ton installations, and then for 100-ton projects in late 2026."

With strong initial results, Syzygy has the data points needed to enter the market. These results also show a strong path forward to continue achieving even greater efficiency and performance in future reactor cell designs. Syzygy is establishing a strong efficiency baseline at the reactor cell level and adding the energy required for balance of plant equipment and processes to determine overall system efficiencies. Including the energy required for an entire e-ammonia cracking plant, test results show that Syzygy technology should be able to produce hydrogen using only 12 kWh/kg in 2025. In 2026, the product roadmap calls for reducing that further to just 10 kWh/kg, further improving efficiency and operating costs.

Syzygy Plasmonics is a deep-decarbonization company. It builds reactor cells that use light instead of combustion to electrify chemical manufacturing and power a cleaner, safer world. Syzygy is commercializing a universal photocatalytic reactor platform designed to consume greenhouse gases and produce low-carbon hydrogen. When powered with renewable electricity, this tunable technology is designed to reduce both cost and emissions from many different chemical reactions. The company's mission is to create a world where chemicals, fuels, and fertilizer are low cost, carbon neutral, and accessible to everyone. For more information visit plasmonics.tech.

Source : Syzygy Plasmonics

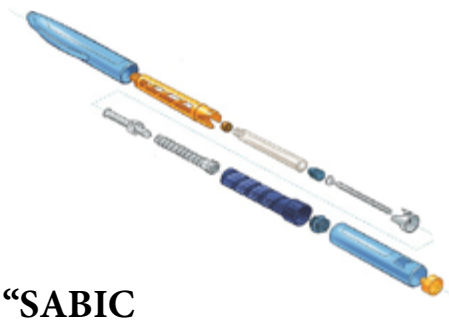
SABIC'S New LNP™ Lubriloy™ Compounds Extend Portfolio of NON-PTFE Lubricated Materials at MD&M West 2024

SABIC, a global leader in the chemical industry, announced here at MD&M West 2024 (Booth #3287) a significant expansion of its LNP LUBRILOY portfolio of internally lubricated specialty compounds. The new LNP LUBRILOY products can meet customer demands for high-performance alternatives to materials lubricated with polytetrafluoroethylene (PTFE), which is a per- and polyfluoroalkyl substance (PFAS). These new grades extend SABIC's LUBRILOY technology to additional base resins and feature a novel, patented lubrication technology enabling OEMs to help avoid health and regulatory issues associated with materials containing intentionally added PFAS.

"In the face of proposed European and individual U.S. state regulations severely restricting or banning the use of PFAS, customers in the healthcare industry and other markets are seeking self-lubricated solutions that don't incorporate these chemicals," noted Ralph R. Buoniconti, SABIC senior specialist, Regulatory. "SABIC has taken the lead in developing multiple new specialty compounds that can serve as alternatives to polymers lubricated with traditional PTFE. By expanding and enhancing our LNP LUBRILOY portfolio, SABIC aims to help customers successfully navigate the changing regulatory landscape for PFAS."

Materials Deliver High Performance without PTFE

Internally lubricated thermoplastics have been used for years because of their advantages over externally applied greases or oils, which add processing time and costs and can transfer to and contaminate other surfaces. As an internal lubricant, PTFE is known for imparting very low friction and enhancing wear resistance. However, global concerns about PFAS have prompted customers in a wide range of industries to consider more-sustainable lubricants to replace PTFE.



"SABIC continues to add value to LNP specialty compounds in multiple ways – from expanded choice to improved regulatory compliance," said Ed Williams, senior product manager, LNP Compounds, SABIC's Specialties business. "Deep knowledge of polymer chemistry enabled our experts to achieve a milestone by developing a novel lubricant technology and incorporating it into multiple new base resins. Our new-generation LUBRILOY compounds offer customers the opportunity to achieve excellent wear and friction performance while easing concerns about anticipated restrictions on PFAS."

New Base Resins Offer Broader Choice

The new grades, which include unreinforced and reinforced products with up to 30 percent glass fiber, complement SABIC's other grades for medical devices. The company's diverse healthcare materials address a range of performance needs, including withstanding multiple sterilizations, resisting aggressive disinfectants, and improving wear and slip-stick performance in applications like drug delivery pens, gears and bearings.

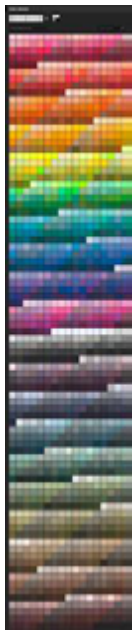
These new compounds are versatile, with possible use in applications across multiple industries. Besides medical devices, they offer the potential for mobility, industrial and infrastructure applications such as automotive under-hood components and interior parts, water meters, conveyor belt guides and tensioners, and other moving parts.

The new LNP LUBRILOY grades and example applications are on display at the SABIC booth (#3287) at MD&M West in Anaheim, Calif., from February 6-8, 2024. Also, Ed Williams, senior product manager, LNP Compounds, will give a presentation on these materials on Tuesday, February 6, at 12:30pm in the MD&M West Design Alley. The topic is "Solving thermoplastic wear and friction problems in medical devices without intentionally added PFAS."

Source : Polymerupdate

Browzwear Extends its Library of Colors to Empower 3D Fashion Workflows with Color Atlas by Archroma®

Pratteln, Switzerland, 6 February 2024 - Archroma, a global leader in specialty chemicals towards sustainable solutions, and Browzwear, a pioneer of 3D digital solutions for the fashion industry, have expanded their partnership to bring the complete Color Atlas by Archroma® library of colors to Browzwear's VSticher, Lotta and Stylezone platforms.



Designers will now have access to a total of 5,760 color references, with 1,440 colors for polyester added to Browzwear's existing color library of 4,320 Color Atlas colors for cotton poplin. This will support them to collaborate across the entire supply chain, ensuring color consistency from digital design to production for cotton, polyester and blends.

Crucially, the color references in the Color Atlas by Archroma® have been formulated to comply with leading international eco-standards, allowing designers to select dyes and finishes that meet their desired sustainability profile. Each color is available as a physical color standard that includes precise dyeing recipes and compliance data, as well as access to expert technical support from Archroma around the world.

"With the industry's largest color library at their fingertips, the Browzwear community is being further empowered to embrace end-to-end digital workflows and bring more transparency, sustainability and collaboration to the fashion industry," Lars Villumsen of Browzwear, said. "We are pleased to continue to partner with Archroma to bridge the gap between fast and efficient digital processes and physical product creation."

"The ongoing digital transformation of the fashion industry is an opportunity for brands and independent designers to streamline the design process. With tools from Browzwear and the 5,760 colors in the Color Atlas library, they are supported to take their designs from concept to creation without compromising their creative vision or sustainability principles," Chris Hipps of Archroma Color Management, said.

Source : Press Release

ELIX Polymers Chemically Recycled Products with up to 100% Sustainable Feedstocks

Tarragona, February 6, 2024 - All of ELIX's Circular Economy activities come under the E-LOOP brand name, with two strategic programmes from ELIX Sustainable Portfolio Solutions: Circular Plastics and Responsible Innovation.

E-LOOP CR products are manufactured with sustainable and certified raw materials that incorporate circular and bio-based feedstocks. These products are certified according to ISCC+ and the mass balance model is used to ensure traceability and transparency throughout the supply chain. Different combinations of feedstocks are possible as there are different sources for the 3 main monomers: fossil fuel-based feedstocks, chemically recycled post-consumer waste and bio-based feedstocks.

CR products with a content of up to 100% more sustainable feedstocks are now possible, meaning that all 3 monomers (Acrylonitrile, Butadiene, Styrene) can be replaced. Depending on the final mix of monomers, reductions in CO2 emissions of more

than 90% can be achieved compared to prime grades. All products from the ELIX Polymers portfolio can be produced as CR grade, including applications with the strictest requirements, such as food contact, light colours and even medical parts. The material properties remain the same, so there is no need for new material approvals and all of the available technical data can be used. First OEM approvals have already been received from various industries.

ELIX Polymers was the first ABS producer to receive yellow cards for its E-LOOP products with certified raw materials, as requested by E&E customers and consumer goods segments.

Source : Press Release

Solvay Expands Operations Across Recycling Facilities in Europe to enhance circularity in Flue Gas Treatment

Capacity expansions in France and Italy meet the rising demand for SOLVAir® and enhance the use of circular raw material across Solvay's facilities in Dombasle and Rosignano.

Solvay has announced capacity expansions at its Resolest®* and Solval® units, specifically designed for recycling residues from the flue gas cleaning process using the market-leading SOLVAir® solution. The rising demand for this advanced technology stems from the enforcement of stringent environmental standards governing emissions across various industries. By the end of 2025, Resolest® is poised to undergo a significant 60% surge in recycling capacity. Likewise, commencing January 2024, Solval® is set to witness a substantial 30% increase in its capacity.

For decades, Solvay has been dedicated to establishing a circular economy for the residues generated from flue gas cleaning through SOLVAir® technology. More than 80% of SOLVAir® residue can be recycled into purified brine, serving as a circular raw material in soda ash manufacturing at Solvay's facilities in Dombasle, France, and Rosignano, Italy. This innovative process empowers both plants to reduce natural brine consumption, actively contributing to resource conservation.

"At Solvay, we're committed to providing sustainable solutions that address humanity's essential needs. The high demand for our SOLVAir® breakthrough technology highlights its unique role in purifying air and preserving natural resources," said Philippe Kehren, Solvay CEO. "We're excited about contributing to the transformation and sustainability of various industries, fostering responsible business growth at Solvay. This aligns seamlessly with our dedication to a circular economy, supporting initiatives such as the European Green Deal and showcasing our unwavering commitment to sustainability."

SOLVAir® patented sodium-based solutions enable various industries such as waste-to-energy facilities, power plants, cement production, glass manufacturing and maritime vessels, to efficiently eliminate over 99% of pollutants. This ensures adherence to the strictest air emission regulations in place. In 2016, SOLVAir® was recognized as an environmentally-friendly solution by the Solar Impulse Foundation's World Alliance.

Source : Solvay

Arkema achieves Mass Balance ISCC+ Certification at its Acrylic Monomers Production Facility in Taixing (China)

Arkema, a leader in specialty materials, announces another significant milestone in the decarbonization of its acrylic production chain, as the company obtains ISCC+ certification for its acrylic acid and ester production facility located in Taixing, Jiangsu Province, China.

The Taixing site stands as the first acrylic monomers plant in China to receive ISCC+ certification.

"Developing bio-attributed materials using a mass balance* approach is a fast and complementary pathway to support our customers in the region with drop-in high-performance solutions, more circular sourcing, and to reduce their greenhouse gas emissions.

", said Hervé Castres Saint Martin - Global Group President Acrylic monomers.

In the near future, the production of certified bio-attributed materials will extend** to North America, complementing the previously certified acrylic monomers production in Carling, France. This global dynamic will support the progressive introduction of Arkema's complete range of bio-attributed specialty resins and additives for the low VOC and lower carbon intensive technologies including high solid, waterborne, UV/LED, and polyester powders.

This leading offer will enable customers and global partners to develop next generation sustainable materials for specialty coatings & adhesives applications in electronics, electric vehicle batteries, new energies, 3D printing, as well as home energy efficiency and living comfort improvement.

"This achievement reflects another

stride in Arkema's global initiative to support the shift towards a more circular and lower carbon economy" said Alan Koo - Regional President Acrylic monomers in Asia

Source : Arkema

Asahi Kasei Europe Joins Plastics Europe Germany

Düsseldorf – January 31, 2024 – Asahi Kasei Europe joined Plastics Europe Germany, the leading association of plastics producers in Germany, in December 2023.

Since its foundation in 2016 as the European headquarters of the Japanese technology group Asahi Kasei, Asahi Kasei Europe has been developing and marketing engineering plastics and fibers, particle foams and other functional materials for the automotive industry and other areas of application. The location is also an innovation hub for the Asahi Kasei Group companies in Europe.

To further foster the relationship with the European plastics industry, Asahi Kasei Europe joined Plastics Europe Germany in December 2023. "As a chemical company and plastics producer, Asahi Kasei has a responsibility to contribute to a more sustainable society. This requires new technical developments, but also cooperation and an open exchange with other companies. We are proud to be able to make our contribution to the ecosystem in the innovation driver Europe through our membership in Plastics Europe Germany," comments Martin Aeschlimann, General Manager Engineering Plastics at Asahi Kasei Europe.

Expertise from A to Z

As a highly diversified company, Asahi Kasei offers solutions along the entire material cycle – from the production of hydrogen as an alternative energy source, bio-based base chemicals and

materials, to new innovative recycling technologies for polyamide 66 and carbon fiber composites. The Group is committing itself to become carbon neutral by 2050.

"It is a pleasure to welcome Asahi Kasei Europe at Plastics Europe! In 2002, Asahi Kasei developed the world's first manufacturing method that uses CO2 as raw material for the production of polycarbonate. Today, 15% of the global polycarbonate production uses this production technology. From my point of view, Asahi Kasei can serve as a a driver for the development of products and product grades to open up new businesses and application areas for the European market", comments Ingemar Bühler, Executive Director, Plastics Europe Germany.

Source : Asahi Kasei

Hanwha Vice Chairman Dong Kwan Kim Unveils Vision for Decarbonization of Shipping at Davos 2024

- Accelerating global decarbonization by expanding the clean energy value chain to encompass production, storage, and transportation
- Building and operating green vessels to drive demand for decarbonization technology in shipping and shipbuilding

Dong Kwan (DK) Kim, Vice Chairman of Hanwha Group, unveiled a new vision for the decarbonization of shipping and introduced Hanwha's plans to build a zero-emission gas carrier. Powered entirely by alternative fuels, the new vessel will be an industry first — developed using Hanwha's proprietary green technology. Speaking at the World Economic Forum (WEF) Annual Meeting in Davos, Switzerland, Kim emphasized the importance of global collaboration to bring such green technologies to fruition and grow market demand.

Hanwha has a strong footprint in clean energy, with a value chain covering the production of solar, hydrogen, and wind energy as well as clean energy storage systems. This announcement further advances Hanwha's commitment to a stronger clean energy value chain, which includes carbon-free transport in shipping.

"Hanwha is challenging existing industry frameworks, spearheading new innovations, and paving the way for maritime decarbonization," said Dong Kwan (DK) Kim, Vice Chairman of Hanwha Group. "We're taking a holistic approach to the energy transition, driving disruptive change not only in the production and storage of clean energy but in transportation as well. Advancing green ship technology and establishing a robust clean energy value chain will help us gain ground in our journey toward net zero."

At a session titled "The First Fossil-Free Ship on the Water," Kim shared Hanwha's blueprint for the development of a carbon-free vessel powered by alternative fuels such as ammonia. As existing internal combustion engines require 5% to 15% of pilot fuel, diesel, for the purpose of ignition, building a vessel free of carbon emissions requires a fundamentally different approach. This is why Hanwha is developing an ammonia-powered gas turbine to replace conventional engines, thus eliminating the need for pilot fuel.

To achieve carbon-free electrification, Hanwha also plans to install hydrogen fuel cells with energy storage systems (ESS) as the vessel's auxiliary source of power. An integrated ammonia cracker will produce the hydrogen required for the fuel cells on board.

Kim also announced plans to own and operate the newly developed green ships to bring the technology to maturity. Deep-sea vessels are capital-intensive investments. They take anywhere from two to three years to build and remain in service for two to three decades, making it extremely difficult for shipowners to invest in budding technologies. By demonstrating the benefits of green ship technology, Hanwha aims to lower the

barriers for shipowner investment and drive demand.

In November, Hanwha Ocean joined the World Economic Forum's First Movers Coalition (FMC), a leading global initiative supported by 13 government partners that represent over 50% of global GDP. The FMC aims to harness the purchasing power of the world's leading companies to create guaranteed early markets for advanced technologies within hard-to-abate sectors, including shipping, steel, chemicals, and aviation. As one of the 95 members, comprising top global companies and non-profit organizations, Hanwha aims to create new partnerships and pilot programs to build sustained momentum for the adoption and commercialization of green ship technology.

"We are thrilled to welcome Hanwha to the First Movers Coalition, marking a significant step in our collective journey towards a net-zero future. Hanwha's commitment underscores the critical role of innovative collaboration in accelerating the decarbonization of the shipping industry," said Rob van Riet, Interim Head of the FMC. "Together, we are poised to make impactful strides in reducing emissions and setting new standards for global shipping."

The decarbonization of shipping is seen as integral in the journey to net zero, as nearly 90% of all globally traded goods are shipped by sea, accounting for 3% of global greenhouse gas (GHG) emissions, according to the Organization for Economic Cooperation and Development (OECD).

Source : Hanwa

Celanese Low-Carbon Eco-CC Products Available through U.S. Department Of Energy Procurement Grant Program

DALLAS--(BUSINESS WIRE)--Celanese Corporation (NYSE: CE), a global specialty materials and chemical company, announced it has been approved by the U.S. Department of Energy (DOE)'s Office of Fossil Energy and Carbon Management as a Utilization Procurement Grants (UPGrants) vendor. Celanese is now the only producer offering low-carbon acetic acid under the ECO-CC product name, which positions the company to help municipalities meet the growing demand for more sustainable and circular solutions.

As the U.S. economy moves toward a lower carbon future, the DOE is seeking to support states, local governments, public utilities and agencies to procure commercial or industrial products derived from anthropogenic carbon emissions. This includes Celanese low carbon acetic acid, which uses the ECO-CC product name because it is manufactured using carbon capture and utilization (CCU) technology. These product offerings have demonstrated significant net reductions in life cycle greenhouse gas emissions and passed a critical DOE review of the product's life cycle analysis. As an UPGrants vendor, Celanese has already begun working with our value-chain partners to extend product usage opportunities to eligible U.S. government entities nationwide.

"By using recycled CO2 as a raw material, we unlock the potential to offer lower carbon footprint options with carbon capture content across more than 90 percent of our Acetyl Chain product offerings," said Kevin Norfleet, global sustainability director, Acetyls at Celanese. "Our ECO-CC solutions are uniquely positioned to help UPGrants eligible entities reduce their carbon footprint in applications including waste-water treatment, de-icing, fertilization, interior painting and more."

Earlier this year, Celanese announced the operation of its CCU project at its Clear Lake, Texas, site as part of its Fairway Methanol joint venture with Mitsui & Co., Ltd. The project is expected to capture 180,000 metric tons of carbon dioxide (CO2) industrial emissions and produce 130,000 metric tons of low-carbon methanol annually. The CCU project takes CO2 industrial emissions that would otherwise be emitted into the atmosphere from both Celanese and third-party sources and applies reduced-carbon-intensity hydrogen to chemically convert the captured CO2 into a methanol building block used for downstream production. This low-carbon input is then used to reduce traditional fossil fuel-based raw materials, such as acetic acid ECO-CC, and can help produce a wide range of end products across most major industries.

Source : Celanese

EVENTS AND CONFERENCES

PAINTISTANBUL & TURKCOAT 2024

Date: May 08-10, 2024
City: Istanbul Expo Center (Istanbul Fuar Merkezi), Bakırköy/Istanbul, Turkey
Country: Turkey
Website: https://10times.com/turkcoat

Description: "International Exhibition of Coatings, Inks, Adhesives, Sealants, Construction Chemicals."
Paintistanbul & Turkcoat is a significant event for the paint and coating industry, attracting exhibitors and visitors from various countries. It provides an opportunity to explore new products and services and to network with industry professionals.

PAINT INDIA

Date: Feb 22-24, 2024
City: Bombay Exhibition Centre, Mumbai
Country: India
Website: https://www.paintindia.in/

Description: PaintIndia is the premier trade fair for the paints, coatings and allied industries in this part of the world, and the third largest show of its kind the world over. It has been in existence for over 25 years now, and has been the fastest growing event globally in this space. It comes from the same lineage as the magazine of the same name, which has been serving the Industry for over 70 years now. More recently, it has been fortified and strengthened globally with the joint ownership between the erstwhile owners and the owners of the European Coatings Show.

MIDDLE EAST COATING SHOW

Date: Apr 16-18, 2024
City: Dubai World Trade Centre
Country: Dubai
Website: https://www.middleeastcoatingsshow.com/

Description: With more than 29 years in the industry, the Middle East Coatings Show has established itself as the only trade event dedicated to the coatings industry in the Middle East. For three days, the trade exhibition facilitates serious business and networking opportunities for the coatings community. The event creates the perfect environment for manufacturers, raw materials suppliers, distributors, buyers and technical specialists like formulators from the coatings industry to meet face-to-face and do business. That's not all, the event offers the opportunity to gather insight on the latest processes, exchange ideas with industry leaders and build a strong network in the Middle East and North Africa.

PAINT EXPO GERMANY

Date: Apr 09 -12, 2024
City: Karlsruhe, Germany
Country: Germany
Website: https://www.admetalsurfacetreatment.com/events-stand-attendance/paint-expo/

EVENTS AND CONFERENCES

Description: PaintExpo takes place every other year in Karlsruhe as a showcase for innovations, applications, future technologies and trends covering all aspects of industrial coating. The trade fair spans the entire range of international products and services in the supply chain for industrial coating technology. The wide spectrum of products extends from spray guns, equipment and materials to automation technology. This globally unique get-together of companies from the industry is unparalleled worldwide, making it highly attractive for coating service providers and in-house coating companies from around the world.

CPHI NORTH AMERICA

Date: May 07 -09, 2024
City: Pennsylvania Convention Center, Philadelphia
Country: North America
Website: https://www.cphi.com/northamerica/en/home.html

Description: Join a global network of pharma professionals connected year-round online and in-person. Attend pharma's largest event to discover further learning, innovation, and collaboration. As the exclusive pharma event in the Americas covering the end-to-end supply chain, it's the ONLY place to meet suppliers from all across our industry. Access endless opportunity to grow your business and expand your network at the heart of Pharma!

EXPO PAINT & COATING

Date: June 27 - 28, 2024
City: Delhi,
Country: India
Website: https://expopaintcoating.in/

Description: Expo Paint & Coatings - 2024 is a comprehensive Paint & Coatings Exhibition providing platform to the needs of every facade of the coating industry right from raw materials, formulation, application, technology, finishing, quality assurance, recycling and disposal.

CHINA INTERDYE 2024

Date: Apr 17 - 19, 2024
City: Shanghai World Expo Exhibition and Convention Center, Shanghai
Country: China
Website: https://10times.com/china-interdye

Description: "China International Dye Industry, Pigments and Textile Chemicals Exhibition"
China Interdye is a premier international show, conducted annually, for the Dyes and Dye Intermediates, Pigments and Textile Chemical industry. It is the perfect meeting point for the exhibitors to reach the global attendees and the perfect medium to know about the recent developments made in these industries.

Synthetic Resins - Changing the World Like Never Before...!

Introduction

In the enigmatic realm of materials, where science intertwines with technology, Synthetic resins stand out for their versatility and utility. These Polymer materials possess a multi-faceted nature, capable of being made to adapt to diverse environments and roles. In their viscous depths lies a history of innovation. They allure curious minds to tap their profound properties, to serve the tapestry of modern civilization. The word "resin" on first thought flashes unto our minds a gummy liquid. These are natural resins like Rosin from pine trees, Shellac from the Lac Beetle, and Gum Arabic from the acacia tree, etc. In this article, we dwell on the various aspects of Synthetic resins. These are man-made polymers produced through chemical synthesis.

Background

Synthetic resins fall under the classification of polymers. They comprise large molecules consisting of repeated structural units called monomers, which are usually organic compounds often containing carbon, hydrogen, oxygen, and other elements. The process of combining these monomers to yield polymer materials is called polymerization. Examples of polymers include polyethylene, polypropylene, polyvinyl chloride, nylon, etc.

Synthetic resins primarily originate from monomers like formaldehyde, phenol, epoxy, or acrylic acid. It is crucial to distinguish them from plastics which stem from synthetic or semi-synthetic polymers derived from petrochemicals. Although both plastics and resins are polymers, their composition, physical properties, and applications markedly differ.

Types of Synthetic Resins

Resins are often viscous liquids before they undergo curing or polymerization. Once cured they become solid, and can have properties from rigid and durable to flexible and adhesive. There are two types of synthetic resins - Thermosetting and Thermoplastic.

Thermosetting resins:-

- Posses a cross-linked molecular structure
- Harden irreversibly when heated.
- Do not soften when cooled or re-heating.

Thermoplastic resins:-

- Feature a linear or branched molecular structure.
- Soften when heated and solidify upon cooling.
- There is only a physical transition without a chemical change.

A few examples of Synthetic resins for general purpose and Industrial resin usage :

- Epoxy resins: Derived from the reaction of epoxide groups (typically from bisphenol A and bisphenol F) with curing agents such as amines or acids. Being thermosetting, they exhibit resistance to chemicals and provide strong adhesion and high mechanical strength.
- Polyester resins: These are thermosetting polymers formed by the reactions of deols with dicarboxylic acids. Used for making FRP (fiberglass reinforced plastics), they are used in the boat, automobile, and construction industries. Water repellent, good mechanical strength, and ease of use make this type of resin attractive.
- Polyurethane resins: Depending on the formulation, these versatile resins could be either thermosetting or thermoplastic. They result from the reaction of isocyanates with polyols. Known for their flexibility, durability, and chemical resistance, making them ideal for coatings, adhesives, foams, and sealants.
- Phenolic resins: Derived from phenol and Formaldehyde, these thermosetting polymers are heat-resistant, flame retardant, and find use in the manufacture of electrical and automotive components. Their properties enable them to be widely used in adhesives, binders, and molded parts.
- Vinyl resins: Vinyl resins offer good chemical resistance and are weatherproof. Formulated from from vinyl monomers such as vinyl chloride, vinyl acetate, etc this thermoplastic polymer is used in synthetic leather production, packaging films, etc.
- Acrylic resins: Made from acrylic acid or its derivatives, this thermosetting polymer is scratch-resistant, and frequently employed in paints, coatings, adhesives, and dental materials.
- Alkyd resins: Known for their excellent film-forming properties and durability, these are polyester-based polymers modified with fatty acids or oils.
- Polyvinyl Acetate (PVA) resin: Primarily used as adhesives, this thermoplastic polymer finds wide application in paperboard packaging, bonding labels, laminated paper, etc.
- Urea - Formaldehyde (UF) resin:

This thermosetting polymer is used as a bonding agent. Its versatility finds usage in the production of particleboard, plywood, fiberglass insulation foam-boards, etc. Decorative laminates and countertops use this resin as it provides a scratch-resistant surface finish.

- Melamine - Formaldehyde (MF) resin: Its high heat resistance and durable properties make this thermosetting polymer suitable for use in many areas. Melamine tableware, food containers, decorative laminates, and molded components for the electrical and automotive industries are some of them.

Present Scenario

A brief overview reveals a diverse range of resin applications, inputs, and end products. While a considerable amount of raw materials, including chemicals and additives are imported, India hosts resin manufacturers catering to bulk requirements across various sectors. Some specialty resins may still be imported.

The Future

One promising area lies in the generation of electricity through non - conventional energy sources (NCES) and Electric vehicles (EVs). Thrust in these areas is driven by government policies promoting clean and green energy. Below are outlined several particulars :

Windmills

- Windmills require blades that are lightweight strong and corrosion resistant.
- Aerofoil designs are incorporated into them to give higher efficiency.
- Built by using composite materials with resins. Resin types used are vinyl ester, polyester, epoxy, etc.
- Adhesive resins are used for bonding various components in the wind turbine blade such as spur caps, shear webs, and blade shells.
- Resin for surface coating enhances durability and longevity.

Electric vehicles (EVs)

- EV components must be lightweight with good mechanical strength, making resins a natural choice.
- Resins reinforced with glass fiber or carbon fiber are used for body panels, chassis, and structural reinforcements. These give exceptional strength-to-weight ratio.
- Motor encapsulation uses resins for winding insulation and better thermal conductivity. It also safeguards against moisture and contaminants, to prolong motor lifespan.
- Li-ion battery encapsulation employs potting compounds and adhesives. These protect against vibration and heat, thus enhancing vehicle safety.

Robotics is another futuristic area. Resins are used in several places including enclosures and housings, structural components, joints and connectors, and electronic circuit boards, among others.

Conclusion

There is much variety in resins today and it holds a promising future. We find ourselves standing at the threshold of discovery, enriched by the tapestry of knowledge woven before us. In some ways, there is a mystery, when we unravel the intricate narrative of resins with curiosity. And in doing so, we continue the legacy of discovery, innovation, and creativity that has characterized humanity's tireless pursuit of knowledge.

Source : Team Chemical Market

Evonik Launches Biotech-Based Vegan Collagen Ingredient for the Beauty and Personal Care Market

- Vecollage™ Fortify L meets increasing market demand for vegan collagen
- Skin-identical collagen demonstrates superior performance
- Leverages Evonik's biotechnology competencies as next step to build up partner platform of non-animal and sustainable collagen

Evonik has launched Vecollage™ Fortify L, a new vegan collagen for the beauty and personal care market that is identical to collagen in the skin. Vecollage™ Fortify L leverages Evonik's competencies in biotechnology, collagen, and skin care to meet the demand for vegan collagen for applications such as anti-aging and hydrating creams. By using a system solutions approach that combines an innovative product with expertise in skin biology, Evonik has unveiled the effect of recombinant collagen on the dermis, the middle layer of the skin.

The launch of Vecollage™ Fortify L brings Evonik a step closer to generating a platform of non-animal and sustainable collagen. This platform will consist of several types of vegan collagen developed by Evonik and together with partners and will cement the company's position as a prominent player in biotechnology-based active ingredients. Bioactives form part of a growing portfolio of innovative biosolutions developed by the company's life sciences division, Nutrition & Care.

Booking price as on 13/01/2024		
Current Exchange rate-$1= 83.00 INR		
Chemicals	**Current Prices**	**Location**
Acetic Acid	465	CFR India
Acrylonitrile	1620	CFR India
Benzene	1025	CFR India
Phenol	980	CFR India
Acetone	975	CFR India
Butyl Acrylate Monomer	1674	CFR India
C9	1025	CFR India
LAB	1469	CFR India
IPA	1626	CFR India
Methanol	300	CFR India
VAM	957	CFR South Asia
Toluene	990	CFR India
Styrene Monomer	1170	CFR India
NBA	1200	CFR India
Octanol	1800	CFR India
Isobutanol	1200	CFR India
MEG	590	CFR India
Mix Xylene	960	CFR India
Gycerine	750	CIF India
DMF	950	CFR India
Acrylic acid	1050	CIF India
Formic Acid	550	CFR India
Adipic Acid	1400	CIF India
Ethylene	945	CFR India
PTA	820	CFR India
Propylene	910	CFR India
THF	2100	CIF India
Note- All above booking prices have been directly collected from intenders and importers and verified.		

Mumbai Market Price as on 13/02/2024				
Name of Chemical	**Packing type**	**Units**	**Current Price**	**Exclusive of**
Acetic Acid	Imported Repack	Rs/Kg	51	GST
	Domestic Intact	Rs/Kg	64	GST
	Domestic Repack	Rs/Kg	52	GST
Acetone	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	100	GST
	Domestic Intact	Rs/Kg	120	GST
	Domestic Repack	Rs/Kg	101	GST

Acetonitrile	Imported Intact	Rs/Kg	155	GST
	Domestic Intact	Rs/Kg	185	GST
	Domestic Repack	Rs/Kg	135	GST
Acrylonitrile	Imported Intact	Rs/Kg	155	GST
	Imported Repack	Rs/kg	145	GST
Aniline	Imported Intact	Rs/Kg	165	GST
	Imported Repack	Rs/Kg	160	GST
	Domestic Intact	Rs/Kg	168	GST
	Domestic Repack	Rs/Kg	NA	GST
Benzene	Domestic Repack	Rs/Litre	96	GST
Cyclohexane	Imported Intact	Rs/Kg	150	GST
	Imported Repack	Rs/Kg	110	GST
	Domestic Intact	Rs/Kg	121	GST
	Domestic Repack	Rs/Kg	111	GST
Cyclohexanone	Imported Intact	Rs/Kg	145	GST
	Imported Repack	Rs/Kg	140	GST
	Domestic Intact	Rs/Kg	155	GST
	Domestic Repack	Rs/Kg	140	GST
C9 Solvent (99.99% purity)	Imported Repack	Rs/Kg	116	GST
C9 Solvent (Arham Petrochem)	Imported Repack	Rs/Kg	115.75	GST
Dibutyl Phthalate	Domestic Intact	Rs/Kg	134	GST
Dioctyl Phthalate	Imported Intact	Rs/Kg	NA	GST
	Domestic Intact	Rs/Kg	160	GST
Ethyl Acetate	Domestic Intact	Rs/Kg	88	GST
	Domestic Repack	Rs/Kg	85	GST
Formaldehyde(37%)	Domestic Intact	Rs/Kg	NA	GST
	Domestic Repack	Rs/Kg	18	GST
Methanol	Imported Repack	Rs/Litre	34.5	GST
Methyl Ethyl Ketone	Imported Intact	Rs/Kg	130	GST
	Imported Repack	Rs/Kg	117	GST
Methyl Isobutyl Ketone	Imported Intact	Rs/Kg	155	GST
	Imported Repack	Rs/Kg	141	GST
	Domestic Repack	Rs/Kg	NA	GST
Methyl Methacrylate	Imported Intact	Rs/Kg	161	GST
	Imported Repack	Rs/Kg	NA	GST
Mixed Xylene	Imported Repack	Rs/Kg	94	GST
	Domestic Repack	Rs/Kg	96	GST
Monoethylene Glycol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	58	GST
	Domestic Intact	Rs/Kg	67	GST
	Domestic Repack	Rs/Kg	58	GST

Iso propyl Alcohol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	148	GST
	Domestic Intact	Rs/Kg	160	GST
	Domestic Repack	Rs/Kg	148	GST
nButanol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	112	GST
	Domestic Intact	Rs/Kg	120	GST
	Domestic Repack	Rs/Kg	112	GST
Ortho Xylene	Imported Repack	Rs/Kg	103	GST
Phenol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	102	GST
	Domestic Intact	Rs/Kg	107	GST
	Domestic Repack	Rs/Kg	100	GST
Phthalic Anhydride	Imported Intact	Rs/Kg	98	GST
	Domestic Intact	Rs/Kg	98	GST
Purified Terethaic Acid	Domestic Intact	Rs/Kg	NA	GST
Styrene Monomer	Imported Repack	Rs/Kg	110	GST
Toluene	Imported Repack	Rs/Kg	92.5	GST
	Domestic Repack	Rs/Kg	93	GST
Vinyl Acetate Monomer	Imported Repack	Rs/Kg	87	GST
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 13/02/2024

Products	Regions	Current prices
Feedstock Prices $/unit		
Crude Oil ($/barrel)	WTI CRUDE	77.02
	BRENT CRUDE	82.04
	MARS US	78.56
	OPEC BASKET	81.45
Natural Gas	New York	1.76
Gasoline	RBOB	2.36
Heating Oil	US	2.93
Ethanol	US	1.58
Naphtha ($/mt)	FOB Singapore	557
	European	670
	CFR Far East Asia	692
Propane	New York	0.92
Aromatics prices $/MT		
Benzene	FOB Korea	1030
	CFR Japan	1040

Styrene	CFR Japan	1110
	CFR South East Asia	1145
	CFR China	1120
	FOB Korea	1090
Toluene	CFR China	885
	CFR South East Asia	945
	FOB Korea	880
	CFR Japan	885
Iso-mix xylene	CFR South East Asia	915
	CFR Taiwan	945
	FOB Korea	925
MEG	CFR China	540
	CFR South East Asia	545
Methanol	CFR China	292
	CFR Korea	342
	CFR South East Asia	362
	CFR Taiwan	330
Solvent-MX	CFR South East Asia	905
	FOB Korea	850
	CFR China	870
Ortho xylene	CFR South East Asia	1020
	FOB Korea	1055
	CFR China	1000
Para xylene	CFR South East Asia	1015
	FOB Korea	995
	CFR Taiwan	1030
Propylene	FOB Japan	815
	FOB Korea	810
	CFR China	845
	CFR South East Asia	910
Propylene Glycol	FOB Korea	895
	CFR China	920
	CFR South East Asia	925
	CFR Taiwan	920
Ethylene	CFR North East Asia	935
	CFR South East Asia	945
	FOB Japan	900
	FOB Korea	905
Ethylene Di Chloride (EDC)	CFR Far East Asia	345
	CFR South East Asia	360

Butadiene	CFR China	1195
	CFR South East Asia	1125
	FOB Korea	1145
FOB Rotterdam USD/MT	Benzene	1140
	Methanol	277
	Ortho xylene	1285
	Para xylene	1115
	Xylene solvent	1030
	Styrene	1245
	Toluene	1080
USA Aromatics prices FOB US Gulf	Benzene C/G	436
	Toluene C/G	369
	Styrene C/LB	54
	Para xylene $/MT	1080
	Mix xylene C/G	380
	Methanol C/G	95
Intermediates prices $/MT		
Acrylonitrile	CFR Far East Asia	1235
	CFR South East Asia	1235
	CFR South Asia	1310
VCM	CFR Far East Asia	590
	CFR South East Asia	650
MTBE	FOB Singapore	893
	FOB US Gulf	1083
Phenol	CFR China	920
	CFR South East Asia	980
	FOB US Gulf	1041
	FOB Rotterdam	1314
Acetone	CFR China	850
	CFR South East Asia	945
	CFR Far East Asia	685
	FOB US Gulf	1700
	FOB Rotterdam	1010
Caprolactum	CFR Far East Asia	1710
	CFR South East Asia	1710
Caustic Soda	FOB North East Asia	335
	CFR South East Asia	400
Ethyl acetate	FOB US Gulf	1672
	FOB Rotterdam	1182
	FD North West Europe(Euro/mt)	1200

Butyl acetate	FOB US Gulf	2180
	FOB Rotterdam	1376
	FD North West Europe(Euro/mt)	1380
MEK	FOB Rotterdam	1859
	FD North West Europe(Euro/mt)	1830
IPA	FOB US Gulf	1243
	FOB Rotterdam	1612
	FD North West Europe(Euro/mt)	1600
NBA	CFR China	1100
	CFR South East Asia	1100
	CFR Far East Asia	1080
Octanol	CFR China	1545
	CFR South East Asia	1465
	CFR Far East Asia	1390
DOP	CFR China	1525
	CFR South East Asia	1520
	CFR Far East Asia	1375
Phthalic anhydride	CFR China	980
	CFR South East Asia	1005
	CFR Far East Asia	945
PTA	CFR Far East Asia	760
	CFR South East Asia	770
Acetic Acid	CFR Far East Asia	480
	CFR South East Asia	485
	CFR South Asia	465
	FOB China	375
VAM	CFR China	910
	CFR South East Asia	905
	CFR South Asia	957
Polymers prices $/MT		
PVC Suspension	CFR Far East Asia	740-760
	CFR South East Asia	740-770
ABS Injection	CFR Far East Asia	1300-1350
	CFR South East Asia	1320-1370

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

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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		
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.
Note- Last changed price means when it changed last whether its yesterday or 2 days ago or 5 days ago or depends on last changing.				

Opening Ports Price (Rs/kg) of Chemicals as on 13/02/2024

USD Exchange Rate: 83.00 INR

Alphabets	Chemicals Name	Current Prices (INR/kg)	Prices in USD/mt Equivalent to INR/kg	Location
A	Acetic Acid	46	554.22	Ex-Mumbai
	Acetic Acid	46	554.22	Ex-Kandla
	Acetonitrile-imported intact	155	1867.47	Bhiwandi
	Acetone	94	1132.53	Ex-Mumbai
	Acrylic acid	87	1048.19	Ex-Mumbai
	Acrylonitrile	135	1626.51	Ex- Kandla
	Adipic acid	118	1421.69	Ex-Bhiwandi
	Aniline oil	150-153	Not Available	Ex-Kandla
B	Benzene	80	963.86	Ex-Vizaz
	Butyl Acetate	103.5	1246.99	Ex-Kandla
	Butyl Acrylate monomer	139	1674.70	Ex-Kandla
	Butyl Glycol	137	1650.60	Ex-Kandla
N	N-Butanol	102.5	1234.94	Ex-Kandla
	N-Propanol	90	1084.34	Ex-Kandla
O	Octanol	150	1807.23	Ex-Kandla
	Ortho Cresol	170	2048.19	Ex-Bhilai
	Ortho Xylene	92	1108.43	Ex-Kandla

C	C10	87	1048.19	Ex-Kandla
	C9	85	1024.10	Ex-Kandla
	Carbon Black-regular grade	65	783.13	Mumbai
	Caustic Soda Lye	32.5	391.57	Ex-Dahej
	Chloroform	12	144.58	Ex-Dahej
	Citric Acid-ANHYD	70	843.37	Ex-Bhiwandi
	Citric Acid-Mono	62	746.99	Ex-Bhiwandi
	Cyclohexane	99	1192.77	Ex-Hazira
	Cyclohexanone	130	1566.27	Ex-Kandla
D	DMF Drum	72	867.47	Ex-Bhiwandi
	DEG	65	783.13	Ex-Kandla
E	EDC	34	409.64	Ex-Kandla
	Epoxy Resin	166	2000.00	Ex-Nhava Sheva
	Ethyl Acrylate	136	1638.55	Ex-port
F	Formic Acid	65	783.13	Ex-Bhiwandi
G	Glycerine	54	650.60	CIF Nhava Sheva
H	N-Heptane	165	1987.95	Ex-Bhiwandi
	Hexane	94	1132.53	Ex-Kandla
	Hydrogen Peroxide-50%	34	409.64	Ex-Bhiwandi
I	Isobutanol	104	1253.01	Ex-Kandla
	IsoPropyl Alcohol	135	1626.51	Ex-Kandla
	IsoPropyl Alcohol	139	1674.70	Ex-Mumbai
L	LAB	122-124	Not Available	Imported
M	Maleic Anhydride-Drum	90	1084.34	Ex-Mumbai
	MDC	27	325.30	Ex-Dahej
	MEG	53	638.55	Ex-Mumbai
	MEK	106	1277.11	Ex-Kandla
	Melamine	97	1168.67	Imported
	Methanol	26.75	322.29	Ex-Kandla
	Methanol	26.5	319.28	Ex-Mumbai
	MIBK	133	1602.41	Ex-Hazira
	Mix Xylene-Solvent Grade	83.5	1006.02	Ex-Kandla
	Mix Xylene-Solvent Grade	85	1024.10	Ex-Mumbai
	MMA	155	1867.47	Ex-Hazira
P	Phenol	92	1108.43	Ex-Kandla
	Phenolic Resin	140	1686.75	Ex-Indore
	Phthalic Anhydride	98	1180.72	Ex-Mumbai
	Propylene Glycol	108	1301.20	Ex-Kandla
V	VAM	81	975.90	Ex-Kandla
	VAM	82	987.95	Ex-Hazira

S	Sodium Nitrate (50Kg Bag)	61	734.94	Ex-Make-Lasons
	Soda ash light	34	409.64	Ex-Bhiwandi
	Styrene Monomer	99.5	1198.80	Ex-Kandla
	Styrene Monomer	100	1204.82	Ex-Mumbai
	Sulphuric Acid	3.5	42.17	Ex-Vapi
T	Tio2(Anatase Grade)	180	2168.67	Ex-Bhiwandi
	Tio2(Rutile Grade)	210	2530.12	Ex-Bhiwandi
	Toluene	82	987.95	Ex-Kandla
	Toluene	84	1012.05	Ex-Mumbai

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

Producer Prices (Rs/kg) of Chemicals as on 13/02/2024

Producers	Chemicals Name	Current Price(Rs/kg)	Import parity price in USD/MT	Production capacity	Location
RIL	Toluene	81.5	981.93	100,000 tonnes/year	Jamnagar
	Mix Xylene	84	1012.05	120,000 tonnes/year	Jamnagar
	MEG	57.1	687.95	750,000 tonnes/year	Jamnagar
	DEG	65	783.13	65,000 tonnes/year	Jamnagar
	TEG	117.5	1415.66	NA	Jamnagar
	LAB	140	1686.75	180,000 tonnes/year	120ktpa Patalganga, 60ktpa Vadodra
	PTA	85.7	1032.53	1,300,000 tonnes/year	Dahej
IOCL	LAB	138	1662.65	120,000 tonnes/year	Koyali, Gujarat
	MEG	52.1	627.71		Ex-Odisha(Paradip)
	MEG	54.2	653.01		Ex-Panipat
	DEG	61.3	738.55		Ex-Odisha(Paradip)
	DEG	63.2	761.45		Ex-Panipat
	Banzene	69	831.33		Vadodara, Gujarat
	Paraffin Wax	110	1325.30		

HOCL	Phenol	100	1204.82	40,000 tonnes/ year	Kochi
	Acetone	96	1156.63	24640 tonnes/ year	Kochi
Deepak Phenolics	Phenol	88.5	1066.27	200,000 tonnes/ year	Dahej
	Acetone	90	1084.34	80.5	Dahej
	IPA Bulk	136	1638.55	30,000 tonnes/ year	Dahej
Arham Petrochem Pvt Ltd (Kandla Energy & Chemicals Ltd Refinery)	C9	84.75	1021.08	69,000 tonnes / year	Kandla
	C9	85.75	1033.13	69,000 tonnes / year	Ahmedabad
	C10	86.5	1042.17	30,000 tonnes / year	Kandla
	C10	86	1036.14	30,000 tonnes / year	Ahmedabad
	C10 - Imported Repack	99.75	1201.81	30,000 tonnes / year	Bhiwandi Warehouse
	MTO/White Spirit(kl)	59.65	718.67	75000 tonnes / Year	Kandla
	MTO/White Spirit(kl)	60.65	730.72	35,000 tonnes / year	Ahmedabad
	De-Aromatised D40	130	1566.27	75000 tonnes / Year	Kandla
	De-Aromatised D40	131	1578.31	35,000 tonnes / year	Ahmedabad
	De-Aromatised D60	139	1674.70	75000 tonnes / Year	Kandla
	De-Aromatised D60	140	1686.75	35,000 tonnes / year	Ahmedabad
SI GROUP	Phthalic Anhydride	97	1168.67	11000 tonnes/ year	Ratnagiri, Maharashtra
Andhra Petrochemicals	Octanol	153	1843.37	70,000 tonnes/ year	Vishakhapatnam
	N-Butanol	101.5	1222.89	30,000 tonnes/ year	Vishakhapatnam
	Iso-Butanol	102.5	1234.94	4000 tonnes/ year	Vishakhapatnam
BASF	Adipic Acid	123	1481.93	210,000 tonnes/ year	Germany
NIRMA	LAB	135	1626.51	120,000 tonnes/ year	Vadodra

TATA Chemicals	Soda Ash light	35	421.69	900,000 tonnes/ year	Mithapur
GACL	Soda Ash light	NA	Not Available		
GSFC	Cyclohexane	99	1192.77	NA	Gujarat
GNFC	Acetic Acid	47	566.27	160,000 tonnes/ year	Bharuch
	TDI Drum	197	2373.49	67000 tonnes/ year	Bharuch
	Aniline Oil	145	1746.99		Bharuch
BPCL	Benzene	74.85	901.81	90,000 tonnes/ year, Mumbai Refinery,	87000 tonnes/ year,Kochi
	Toluene	80	963.86	16,000 tonnes/ year	Kochi Refinery
	Hexane(kl)	94.05	1133.13	35,000 tonnes/ year, Kochi	Mumbai Refinery
	Hexane(MT)	141.6	1706.02	35,000 tonnes/ year, Kochi	Mumbai Refinery
	MTO(kl)	89.65	1080.12	19,000 tonnes/ year	Mumbai Refinery
	Paraffin Wax	110	1325.30		
	Sulphur(Molten)	10.49	126.39	19,000 tonnes/ year	Mumbai Refinery
	Acrylic Acid (Bulk)	70	843.37	47000 tonnes/ year	Kochi Refinery
	Acrylic Acid (Packed)	79	951.81		Kochi Refinery
	2-Ethyl Hexanol (B)	112	1349.40	47000 tonnes/ year	Kochi Refinery
	2-Ethyl Hexanol (P)	122.5	1475.90		Kochi Refinery
	N-Butanol(B)	101.5	1222.89	38000 tonnes/ year	Kochi Refinery
	N-Butanol(B)	90	1084.34		Kandla Installation
	N-Butanol(P)	100.5	1210.84		Kochi Refinery
	Iso-Butanol(B)	95.5	1150.60	7000 tonnes/ year	Kochi Refinery
	Iso-Butanol(P)	96	1156.63		Kochi Refinery
	Butyl Acrylate (B)	96.5	1162.65	180000 tonnes/ year	Kochi Refinery
	Butyl Acrylate (B)	96.5	1162.65		Kandla Installation
	Butyl Acrylate (P)	106	1277.11		Kochi Refinery
	2-Ethyl Hexyl Acrylate(B)	132.4	1595.18	10000 tonnes/ year	Kochi Refinery
	2-Ethyl Hexyl Acrylate(P)	142.4	1715.66		Kochi Refinery

MDC	Grasim	25.75	310.24	33000 tonnes/ year	Nagda, Madhya Pradesh
	Meghmani	25.75	310.24	397500 kg/ month	Ankleshwar, Gujarat
	GACL	25.75	310.24	NA	Bharuch, Gujarat
Ethyl Acetate	GNFC	74.5	897.59	50000 tonnes/ year	Bharuch, Gujarat
	Accord	74	891.57		
	Satyam	75	903.61	50 tonnes/day	Nevasa, Maharashtra
	Jubilant	75	903.61	280 tonnes/day	Gajraula, U.P
	Laxmi	75	903.61	100000 tonnes/ annum	Mahad, Maharashtra
Caustic Soda Lye	Meghmani	31	373.49	400000 tonnes/ annum	Bharuch, Gujarat
	GACL	31	373.49		
	RIL	31	373.49	69500 tonnes/ annum	Kurnool Distric, Andhra Pradesh
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ANTI FOAMING AGENT / 68554-65-4 / 39100020

CAS-Number : 68554-65-4

Molecular Formula :-

Molecular Weight :-mol/g

Available Qty :- 1500.0000 Kgs

Package Size :- 50/200 Kgs HDPE Carboy

Price :- Available on Request

Markets :- Adhesives & Sealants | Water Treatment | Agro Chemicals | Dyes and Pigments | Inks and Printing | Soap & Detergents | Paper Industry | Leather Industry | Textile Industry

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ADAMANTANE / 281-23-2

CAS-Number :- 281-23-2

Molecular Formula :- C10H16

Molecular Weight :- 136.23 mol/g

Available Qty :- Kgs

Package Size :-25kg/drum

Price :- Available on Request

Markets :- Dyes and Pigments | Intermediates | Pharmaceutical Intermediates | Pharmaceuticals & API |

MIXED MINERAL HYDROCARBON OIL

CAS-Number :-

Molecular Formula :-

Molecular Weight :- mol/g

Available Qty :- 500.0000 Tonnes

Package Size :- 160 Kg

Price :- Available on Request

Markets :- Oils Refinery and Petrochemicals | Specialty Chemicals |

LOW AROMATIC WHITE SPIRIT GRADE 1 / LAWS / 8042-47-5 / 27101250

CAS-Number :- 8042-47-5

Molecular Formula :-

Molecular Weight :- mol/g

Available Qty :- 500.0000 Tonnes

Package Size :- 160 Kg

Price :- Available on Request

Markets :- Oils Refinery and Petrochemicals | Specialty Chemicals |

UREA - AGRICULTURAL GRADE

CAS-Number :-

Molecular Formula :-

Molecular Weight :- mol/g

Available Qty :- 100.0000 Kgs

Package Size :- 25 kg polypropylene bag and 1000 kg Jumbo Bag

Price :- Available on Request

Markets :- Basic Chemicals | Specialty Chemicals | Industrial Chemicals |

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"The future of skincare is all about biotech-based collagen! Brand owners can now offer consumers sustainably sourced, skin-identical collagen. This true hero ingredient clearly shows how sustainability drives us and collaboration defines us," said Yann d'Hervé, head of Evonik's Care Solutions business line.

Vecollage™ Fortify L was developed in partnership with the company Modern Meadow Inc., which specializes in fermentation-based protein development. It provides dual benefits to fortify collagen in the skin by preventing age-related degradation and stimulating the skin's own collagen production.

For decades, collagen has been a sought-after ingredient in cosmetics and dermatology for its ability to improve firmness, elasticity and hydration in the skin. Traditionally, collagen comes from animal and marine sources, but consumers are increasingly looking for ethical and sustainable alternatives, while brands are concerned about supply security issues. Vecollage™ Fortify L is made using fermentation technology, which addresses these challenges by delivering a vegan collagen produced in a controlled manner with a lower ecological footprint.

The Care Solutions business, part of the Nutrition & Care division, specializes in concepts for skin care, sun care, color cosmetics, hair care, skin cleansing, active ingredients, alternative preservation and product stabilization. Evonik's Nutrition & Care division is home to the company's biotechnology excellence center which applies fermentation technologies in various high-growth markets.

Source : Evonik

Sabic Celebrates 30 Years of Successful Operations In India

SABIC, a global leader in the chemical industry, celebrated its 30th anniversary of successful operations in India during the recent visit of SABIC's executive committee members to India.

SABIC in India has a long-established presence of strategic businesses like Polymers, Chemicals, Agri-nutrients and Specialties – complimented by a comprehensive footprint spanning across a manufacturing site in Vadodara in Gujarat, a Research & Technology center in Bengaluru, Karnataka and the Corporate & Business office in Delhi Capital region. This comprehensive presence over the last three decades has been marked by business excellence and strong customer relations.

During the recent visit to India, Abdulrahman Al-Fageeh, SABIC CEO, participated in the 30 year milestone celebration and engaged employees from across SABIC sites in India. "India is the closest largest market to Saudi Arabia and remains a strategic market with immense opportunities and growth potential. SABIC remains committed to drive market relevant solutions and to meet the expectations of our stakeholders in India," Al-Fageeh emphasized.

Al-Fageeh led the delegation comprising of members from SABIC's executive committee during his recent visit to India. During the celebrations, he was joined by the regional leadership and employees associated for three decades with SABIC, at the technology center in Bengaluru – one of the 20 Technology centers globally. "Talent is key to SABIC's growth and we remain invested in growing our talent pool in India to further our business growth, globally," said Al-Fageeh.

Source : Sabic

Canyon Ranch Launches Inaugural Beauty and Wellness Festival: Enchant at The Ranch

TUCSON, Ariz., Feb. 1, 2024 / PRNewswire/ -- Canyon Ranch, a global leader in destination wellness experiences known for its cutting-edge fusion of beauty, wellness and hospitality, is excited to introduce their inaugural 'Enchant at Canyon Ranch' from March 17 - 21 at its Tucson, Arizona resort and spa. The weeklong exposition is a beauty and wellness industry celebration that brings together leading beauty brands, influential industry leaders, and passionate consumer guests at this world-class resort venue.

The starting lineup for the Enchant festival includes industry execs Rachel Roy (fashion designer & Founder of Ancient India), Joanna Czech (celebrity esthetician, skincare guru, and founder of Joanna Czech skincare), and Janet Gurwitch (Founder & former CEO of Laura Mercier), Sheena Zadeh-Daly (Founder of Kosas), as well as brands The Out-

set (Co-Founded by Scarlett Johansson and Kate Foster), VENN Skincare, Biologique Recherche, Therabody and many more. Beauty lovers and wellness gurus alike can expect curated and enriching programming, expert-led lectures and special offerings alongside an exclusive gifting suite, a first for Canyon Ranch.

"As a leader in the wellness, spa, and beauty space, we are excited to create this authentic moment for exceptional brands, industry leaders, and our guests to come together in a fresh, new way," says Leena Jain, Chief Marketing Officer of Canyon Ranch. "We have invested over 45 years of effort perfecting our spa and beauty business and, as such, we wanted to celebrate what we feel is the future of the industry."

In all, over 25 brands will be showcased at the event, where they will host panel discussions, provide demonstrations, and offer bespoke services to Enchant attendees. Industry experts will speak about the latest developments in the space and their unique approaches to success. "I am eager to lend my voice to this exciting event where I can collaborate with fellow entrepreneurs, speak about new trends and ideas in the industry, and engage with other beauty and wellness brands," says Rachel Roy. "This is also an amazing opportunity for me to spend time and interact with Canyon Ranch guests who are devoted fans of spa and beauty." The Enchant experience is open solely to guests staying at Canyon Ranch in Tucson during the festival dates, and each stay includes full registration access to all events and activities. Guests will also be invited to an exclusive gifting suite, hosted by the participating brands, where each guest can create their own swag bag valued at over $2,000.

Similar programming will be rolling out across Canyon Ranch's other properties throughout 2024 including an Enchant experience at their Lenox, Massachusetts location slated for October 20-25. "We are anticipating this to be an annual event at our locations where we can unveil new experiences and interact with beauty purveyors that match our brand ethos in a new and exciting way," says Deirdre Strunk, Canyon Ranch's Senior Vice President of Spa and Beauty.

Source : PRNewswire

Paints: Unveiling the Unseen Transformation...!

Introduction

Paints are the silent maestros of transformation. Residing in unassuming cans, wielding magical prowess when applied. The bulk of paints manufactured in India fall into the Automobile paints and the Construction Industry paints category. Its origins can be traced back to 1902, with the inception of a small factory "Shalimar Paints" in Kolkata. Over the years this sector has evolved dynamically, keeping in sync with the demands of our nation. With 70 % market dominance shared among 7 major companies, leaving the remaining 30% to around 3000 others, a seeming imbalance for a century-old technology.

Constituents and Process

The major components of a paint and their function comprise :

- **Pigments :** These provide color and opacity.

  - Organic pigments. Includes Azo and pythalocyanine, which are synthetic. These are not plant-based. However, they yield the vibrant colors that are attributed to modern paints.

  - Inorganic pigments - White in color, Titanium dioxide is very widely used.

- Resins act as binders. A few examples:-

  - Acrylic Resin. This is a binder used for Construction Industry paints. Adds to the durability and enhances the adhesive property of the product.

  -Alkyds for oil-based paints. Gives good adhesion and a smooth finish.

  -Epoxy for paints used in harsh Industrial Environments and marine applications

  - Polyurethanes for UV (ultraviolet) and abrasion resistance. Automobile paints fall into this category.

- **Solvents**

  - Water. This is the most common solvent and is used for water-based paints. It is added to the paint at the site, before application.

  - Turpentine / Mineral spirits. Acts as a thinner in oil-based paints. Added prior to application, it enables spreading. It evaporates leaving the mix of pigment and binder.

  - Isopropyl Alcohol, Ketones, and Esters. These influence the drying rates which determine the quality of the end product.

- **Additives**

  - Thickeners. To adjust the consistency and viscosity for individual applications.

  - Anti-fungal Agents - Prevents the growth of algae and molds.

  - Stabilizers. Retain the chemical properties of the product and enhance shelf life during storage.

- **Fillers - Calcium carbonate and Talc, improve paint texture.**

- Chemical Intermediates - Cater to specialty paints.

Paint formulation involves a precise mix of the constituents under controlled process parameters. The plethora of choices leads to diverse end products, each with its unique specialties. Describing each process associated with a group would be voluminous, and thus beyond the scope of this article.

Raw material Import

Post-1993 liberalization in India saw a boom in the industry sector. Restrictions on the import of many items were lifted. The paint industry was among the beneficiaries. Today after nearly three decades of liberalization, we rely on imports for many items. Countries like China, Germany, the USA, South Korea, Taiwan, Japan, etc are on our import list for the paint sector. The list is long as there are multiple sources for the supply of the same item. This is a good sign as it reduces dependency on a single source and fosters healthy competition.

Special mention is made here of Titanium dioxide, a chemically inert pigment. Its whiteness and opacity are of a high order. Further, its ability to scatter and reflect ultraviolet light protects the paint film from the damaging effects of UV radiation that cause fading and cracking. Titanium dioxide is extracted from Illeminite ore found in the southern beaches in the state of Kerala. Termed as a sulfate process, it involves electrostatic or magnetic separation, digestion, purification, hydrolysis, calcination, and milling to the required particle size. It is a capital-intensive industry and subject to regulatory standards. Compliance with environmental regulations necessitates additional investments in pollution control and waste management systems. China is the world's largest manufacturer and exporter of Titanium dioxide. Indian paint manufacturers are heavily dependent on China. It should be noted that this chemical constitutes about 12 to 35 % of the final product. It is estimated that our indigenous requirement is 2.20 lakh tonnes against production of 0.5 lakh tonnes. Volatile prices have further added to the woes of paint manufacturers.

Specialty Paints

Specialty paints are versatile and each is tailored to meet specific requirements in diverse settings. A few examples are listed below:-

- Heat-resistant paints - They fall into the category of High -performance automotive finishes. Applied on surfaces exposed to high temperatures, like engine components, grills, and exhaust pipes. Prevents peeling and discoloration due to heat stress.
- Reflective paint - Applied on surfaces like pedestrian walkways, road markings, bicycles, and rear sides of trucks. The paint contains reflective particles which enhance visibility in low light conditions and add to safety.
- Magnetic paint - It allows magnets to adhere to the painted surface. It transforms itself into a magnetic board for notes and pictures. Can be used in classrooms and offices.
- Rust-inhibiting paint - Contains corrosion inhibitors that prevent or slow down the formation of rust. Can be used wherever surfaces are exposed to external elements like fences, gates, and outdoor furniture.
- Glow in the dark paint - Absorbs light during the day, and emits a visible glow in the dark. It thus provides illumination without an external light source. Used in theaters and safety signage.
- Aircraft paints - Contain anti-corrosive agents that shield the aircraft body from the corrosive impact of salt, moisture, and airborne contaminants. Additional features include aesthetic appeal, longevity, and lightweight.

Compared to general purpose paints their volume is comparatively very small but with a significantly higher monetary value. However, in the future, you may see an uptick in their usage. There also exist some specialized paints for Construction projects.

Certain industries demand a special formulation due to their requirements. Even though a small segment, they are catered to paints with advanced formulae for specific industries.

The Future

India is poised to grow at a CAGR (compounded annual growth rate) of 7 %. Much of this will be sectors of affordable housing, infrastructure, EV (electric vehicles), and NCES (non-conventional energy sources). The demand for paint is set to surge, both for fresh and re-painting requirements. Growth will be accompanied by increasing mobility. There will be a higher demand for durable paint solutions for vehicles.

However, a cursory look at the share prices of the top seven paint companies shows volatility within a price band of up to approximately +/- 15 %. This is mainly attributed to the fluctuation in prices of raw materials. If the gains on higher volumes are to be accrued to the nation, then this aspect must be addressed for sustained growth.

Conclusion

This article aims to provide a comprehensive view of the paint scenario in India. The magic of paints is not confined to the walls they embellish. They transcend their functional roles and mirror the ever-evolving tastes of endurance, change, and resilience. Advancements in technology have enabled a myriad of shades, finishes, and colors. Architects spend a significant amount of their time honing their skills to choose the right color, shade, and texture combinations. Paints breathe life and aesthetics into surfaces, embodying the magic beyond the visible layers. This is much unlike the faceless modern glass and chrome structures, that we see everywhere.

Source : Chemical Market Team