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Connecting the Chemical Industry Together !

A MONTHLY MAGAZINE DEVOTED TO

DYES CHEMICALS PHARMACEUTICALS API TEXTILE AUXILIARIES PAINTS SOLVENTS COSMETICS

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CHEMICAL MARKET
Connecting the Chemical Industry Together !

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CphI - Informa Group			
No	**Exibitions**	**Date**	**Place**
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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3	Benzoyl Chloride	98-88-4
4	Hcl Gas In Methanol	7647-01- 0
5	Methyl Chloroformate	79-22-1
6	Methylamine Hydrochloride	593-51-1
7	Monomethylamine In Methanol	74-89-5
8	Pyrophosphoryl Chloride	13498-14-1
9	4m Hcl Acid In 1,4-Dioxane	7647-01-0
10	Methylamine Solution 40%	74-89-5

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Product Origin : CHINA

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ORGANIC INTERMEDIATE

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2.	Adamantanamine Hydrochloride	CAS RN. 665-66-7
3.	Benzoyl Chloride	CAS RN. 98-88-4
4.	Benzotrichloride	CAS RN. 98-07-7
5	Chloroethylene Carbonate	CAS RN. 3967-54-2
6.	Dichloromethane	CAS RN. 75-09-2
7.	Aniline	CAS RN. 62-53-3
8.	Aluminium Chloride	CAS RN. 7446-70-0
9.	Chlorinated Paraffin-52	CAS NO. 106232-86-4
10.	Chlorinated Paraffin-70	CAS RN. 106232-86-4
11.	Sodium Hypochlorite	CAS RN. 7681-52-9
12.	Methyl Methacrylate	CAS RN. 80-62-6
13.	Methacrylic Acid	CAS RN. 79-49-4
14.	Diethyl Oxalate	CAS RN. 95-92-1

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CHEMICAL MARKET

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

Do you require consultants with technical know-how in the chemical industry?

This month we explored a very important but niche field where consultants in the chemical industry are discussed. Recently I met with a couple of PHD holders in the chemical industry. One is an academician and another has extensive experience in the industrial as well as academic field. The most important aspect of what I learned from them is that they get ample opportunities however, they are limited to the technical aspects of the material or research they are working on. Sometimes, they may even get their name in the patent applications which they work on and other times the company takes the credit of it all. Even then, they are not disappointed but they strive to continue to work hard because for them their work is more important than the credit they may or may not get for the betterment of humanity.

Interestingly, there is no such platform to find the people who have excellent academic credentials and industrial experience. Currently, the only way to reach out to these individuals is via word-of-mouth or via some online profile like LinkedIn if they are technology savvy and job portals. We will soon launch a platform for these consultants to be part of the chemical industry where they can showcase their experience and credentials to the world of dyes, chemicals and pharmaceuticals. There are several requirements for PHD holders where their research can help fructify the end goal of a problem at hand. They get a lab environment with all the important resources to work for the company they do research for. Most companies have their own R&D departments where several scientists and doctorate level candidates work together to develop and scale chemicals and its compounds.

There are instances where a certain technology and formula may have been already created by other researchers at a university or at a lower level of a company. However, to move to larger scale and convert the ideas into practical use for manufacturing and producing at scale is still a challenge. Most specialty chemicals, oil and gas major, dyes intermediates have their own R&D departments. Many companies want to hire this special skilled person who have done a thesis or have experience in the development of the products related to what they are developing.

There are 3 types of people who work together for the development and/or scaling of a final product, including chemical engineers, chemical scientists and theoretical experts who have the doctorate degree to identify the root cause of a given problem and work together to come up with a solution for the same. From conceptualization to final scaling of the end product is what they work together for and this helps make life of common people more worthwhile. Weather it is a solution of a problem related to health by developing and scaling the production of medicines and pharmaceuticals drugs or a solution to a problem related to the screen of your phone which helps make the phone screen sturdy and robust and prevents breaking. Weather it is the research done to make your clothes human friendly to wear or it is the chips that are used in your computer to communicate via email. All processed involve chemical technologies and improves the lifestyle of the masses. There will be a huge influx of jobs for these special skilled individuals with a background in chemical engineering or doctorate degree to work in India as there are several manufacturing jobs flourishing the job market in the coming decade. The semiconductor industry is one such industry where several process engineers will be required at scale to build the semiconductor wafer processing fabrication plants using tools from leading semiconductor giants like Applied Materials, KLA Tencor and National Semiconductors which are all giant US based chip tools manufacturers or processing technology providers of semiconductor wafers which are processed by these tools. Similarly, there will be huge strides in agrochemicals, construction chemicals and the oil and gas industry where these highly skilled individuals will be required. Several startups are also contributing to innovate and develop technologies in chemical industry where there is a great potential to reap huge financial benefits. We at Chemical Market want to connect the chemical engineers, scientist and doctorate level individuals to the companies in the chemical industry. If you are interested to find these people or if you are a highly skilled consultant, please send us an email at info@chemicalmarket.net

- Rajiv Parikh

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MUMBAI PRICE TREND – 16.03.2024	
Organic & Inorganic Chemicals	Price (Rs/Kg)
Acetone	112+
Phenolic	99+
Sorbic 100 kg	290+
Proplene Glycol Tech	116+
Butyl Carbitol Oucc Tawan	152+
Butyl Carbitol Petronas	155+
Benzoic Acid Wuhan Youji	92+
Adipic Acid Haily	116
Acrylic Acid Sattelite/Sanmu	91
Butyl Cellosolve Lotte Korea Intact	154+
Cyclo Hexanone Tpcc Taiwan Intact	108+
Alphox 500	170+
MIBK	138+
Toluene	90+
Benzene	95+
Ortho Xylen	108+
M. Xylene	95+
IPA.	143+
Meg	58+
Deg.	72+
Bam	143+
Methanol	34+
MTO.	75.50+

NBA	112+
Ethyl Acetate	84+
N. Proponal	93+
Pottasium Carbonate Imp	83+
DCDA	178+
SBC	1575
Soda Tata	1525
Acid	53+
Butyl	111+
B Cell	157+
DA	129+
DMA 40%	57+
EDC	44+
Hexane	72+
MCB	74+
MEK	112+
MMA 40%	49+
N Benzene	86+
N Pac	105+
Octonol	173+
Styrene	109+
VAM	84+
C9	105+
C Hexanone	138+
I Butanol	115+
Formal	20/+

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

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Market Prices given in this Magazine is to know market trend only.
We assume no responsibility for availability of products at quoted prices.

CHENNAI PRICE TREND – 13.03.2024

Inorganic Chemicals	No of Units Per Pack	Price (Rs/Kg)
Acid Slurry (Soft)	50 Kgs	120.00
Alum- Ferric	50 Kgs	21.00
Ammonium Bicarbonate	25 Kgs	25.00
Ammonium Bi Fluoride [sugar-grade]	50 Kgs	178.00
Ammonium Carbonate	50 Kgs	88.00
Ammonium Chloride	50 Kgs	26.00
Ammonium Nitrate	50 Kgs	30.00
Ammonium Phosphate (Mono)	50 Kgs	135.00
Ammonium Sulphate	50 Kgs	22.00
Antimony Trioxide	50 Kgs	1050.00
Barium Chloride	50 Kgs	58.00
Bleaching Powder (33% Cl)	25 Kgs	14.00
Borax (Granular)	50 Kgs	82.00
Boric Acid (Tech.)	50 Kgs	134.00
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	86.00
Caustic Soda (Flakes)	25 Kgs	40.00
Caustic Soda (Prills)	50 Kgs	92.00
Chromic Acid Flakes	50 Kgs	290.00
Chlorinated Xylene	25 Kgs	85.00
Copper Sulphate	180 Kgs	220.00
Di ammonium Phosphate	50 Kgs	34.00
Dioctylmalite	180 Kgs	82.00
Ferric Chloride (Anhydrous)	Naked	44.00
Ferrous Sulphate – Crystals	50 Kgs	16.00
Hydrochloric Acid	Naked	6.00
Hydrogen Peroxide 50%	50 Kgs	34.00
Hyflosupercell	22.7 Kgs	138.00
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	100.00
Potassium Nitrate	50 Kgs	150.00
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	52.00
Soda Ash Light	50 Kgs	32.00
Sodium Bicarbonate	50 Kgs	33.00
Sodium Bichromate	50 Kgs	180.00
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	132.00
Sodium Hydrosulphite [China]	50 Kgs	180.00
Sodium Metabisulphite	50 Kgs	45.00
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	58.00
Sodium Sulphide 58-60% (Flakes)	50 Kgs	52.00
Sodium Sulphite 92%	50 Kgs	56.00
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	80.00
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	100.00
Benzene	196 Ltrs.	96.00
Benzyl Alcohol	200 Kgs	180.00
Bisphenol-A (Russian)	25 Kgs	180.00
Bisphenol-A (Russian)	170 Kgs	115.00
n-Butyl Acetate	165 Kgs	123.00
Butyl Cellosolve	195 Kgs	163.00
Camphor	25 Kgs	400.00
Cellosolve –Ethyl	195 Kgs	152.00
Chloroform	300 Kgs	27.00
Citric Acid (Anhy)	25 Kgs	85.00
Citric Acid (Mono)	25 Kgs	68.00
Cresote Oil	50 Kgs	64.00
Cyclohexanone	190 Kgs	154.00
D D Turpentine	200 Ltrs.	145.00
Diacetone Alcohol	195 Kgs	140.00
Diethylene Glycol	230 Kgs	85.00
Dimethyl Formamide	195 Kgs	88.00
Dioctyl Phthalate	200 Kgs	160.00
Di-Pentene	200 Kgs	92.00

EDTA Acid	25 Kgs	248.00
EDTA Disodium	25 Kgs	198.00
EDTA Tetrasodium	25 Kgs	198.00
Ethyl Acetate	185 kgs	99.00
Ethylene Dichloride	200 Kgs	62.00
Ethylene Glycol-mono	230 Kgs	65.00
Formaldehyde	65 Kgs	28.00
Formic Acid	35 Kgs	68.00
Formic Acid	250 Kgs	60.00
Hexamine – Tech	50 Kgs	100.00
n-Hexane	160 Litrs	64.00
Hydroquinone (Imported)	25 Kgs	1150.00
Isopropyl Alcohol	160 Kgs	156.00
Isopropyl Alcohol (Refill)	160 Kgs	140.00
Maleic Anhydride	25 Kgs	110.00
Methyl Ethyl Ketone	166 Kgs	125.00
Methyl Isobutyl Ketone	160 Kgs	163.00
Methyl Isobutyl Ketone (Refill)	160 Kgs	153.00
Methylene Dichloride	250 Kgs	48.00
Methylene Dichloride (Refill)	250 Kgs	40.00
Mineral Turpentine Oil	50 Kgs	105.00
Monochloro Phenol	50 Kgs	120.00
Nitrobenzene	200 Kgs	108.00
Octanol (2-ethylhexanol)	160 Kgs	135.00
Oleic Acid	50 Kgs	135.00
Oxalic Acid (Punjab)	50 Kgs	64.00

Paraffin Wax (White)	50 Kgs	112.00
Para formaldehyde 91%	25 Kgs	115.00
Perchloroethylene	320 Kgs	90.00
Phenyl Liquid	230 Kgs	108.00
Phthalic anhydride	25 Kgs	115.00
Pine Oil 22%	200 Litrs	130.00
Pine Oil 40%	200 Litrs	190.00
Polyethelene Glycol 400	230 Kgs	110.00
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	33.00
Sodium Benzoate	50 Kgs	108.00
Sorbitol	250 Kgs	52.00
Stearic Acid (cosmetic)	50 Kgs	135.00
Styrene Monomer	185 Kgs	120.00
Terpeneol Perfumery	25 Litrs	230.00
Thiourea	25 Kgs	230.00
Toluene	200 Ltrs	96.00
Trichloroethylene	280 Kgs	85.00
Triethanolamine	210 Kgs	134.00
Vinyl Acetate Monomer	185 Kgs	100.00
Xylene Mixed	185 Kgs	97.00
O-Xylene	185 Kgs	115.00

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

M/S. CHEMICAL (INDIA) COMPANY

'Eden Plaza', 3rd Floor, 87-Perumber Barrack Road, (Near Doveton Signal), Purusaiwakkam, Chennai - 600007 (India).
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Web : www.chemicalsindiacompanychennai.com

Market Prices given in this Magazine is to know market trend only.
We assume no responsibility for availability of products at quoted prices.

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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
Corium 4040	250	Industrial
Details : Please quote the best price with lead time & COA/MSDS, Technical document, Brochure of the product, Cost of Shipping to Bangladesh by Sea/AIR (Dhaka Air Port)Both Ways		

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
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
Corium 4040	1 Ltr	Industrial
Details : Please quote the best price with lead time & COA/MSDS Purpose:- Heavy Duty metal repair compound. It quickly repairs leakes, cracks, fractures, and groves in metal. Technical Parameters:- a. Composed: Base (type A) and Reactor (type B) b. PartNo: 4040 c. Chemical Category: Industrial Chemical d. PackSize: Each Box 1 Set (2 X 500 ml=1000ml) Required Sample for test first. e. Pack Type: Pot (plastic/tin) Year of Manufacture:- Must be 2023 or later. Certificate & Documents of Authentication:- a. Authentic Certificate. b. Classification society/ Standardization certificates.		

Product Name	Qty	Grade
Glycerol	4 Cans	Any
Details : 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
Dilute Acetic Acid	50 Tonnes	Chemical
Details : Lead For: P&C Chem Cloud Pvt Ltd Sir , We are dealing in Acetic Acid , Dilute Acetic Acid and Hydrochloric Acid since 1987 here in Ahmed-abad... sir , we are in regularly need of Dilute Acetic Acid... will be waiting for your positive approach... thanks and regards Dinesh Gupta... Haresh Acids and Chemicals Pvt Ltd		

Product Name	Qty	Grade
Starvis 3003F // Viscosity Modifying Agent // 39069090 // BASF CONSTRUCTION POLYMERS GmbH	200 Kgs	Chemical
Details : Lead For: Broadways Chemtech Looking to buy 200kg Starvis, 1000kg Vinapor 2941 DF and 100 kg Kelco Crete DG-F of genuince BASF material		

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
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
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
Acetic Acid Industrial grade	40 Kgs	Industrial
Details : Need Quotation asap		

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.		

Asia-Pacific Polybutylene Terephthalate Industry Research Report 2023-2033 Featuring Toray Ind, SABIC, BASF, Celanese, Evonik, LG Chem, Lanxess, DuPont de Nemours Among Others

DUBLIN, Feb. 14, 2024 /PRNewswire/ Polybutylene Terephthalate (PBT) is witnessing substantial growth in the Asia-Pacific market, propelled by its versatile applications and the region's dynamic industrial landscape. One significant driver of PBT's demand is its extensive use in the automotive sector.
The Asia-Pacific Polybutylene Terephthalate market has been witnessing robust growth, driven by rapid industrialization, technological advancements, and the increasing demand for lightweight and durable materials across sectors. With the Asia-Pacific region being a major hub for automotive manufacturing, the increasing production of vehicles in countries like China, Japan, and South Korea is fueling the demand for PBT in applications such as connectors, sensors, and electrical components within automobiles.

The electronics and electrical industry is another key contributor to the growing popularity of PBT in the Asia-Pacific market. PBT is widely used in the production of electronic components and electrical devices due to its superior electrical insulating properties and resistance to heat. As the Asia-Pacific region continues to one of the leaders in the production of consumer electronics, appliances, and electrical equipment, the demand for PBT as a reliable and durable material for manufacturing housings, connectors, and insulating components is on the rise.
Moreover, the expanding demand for PBT in the Asia-Pacific market is also attributed to its applications in various consumer goods and industrial sectors. The region's growing middle-class population and increasing industrialization contribute to the rising utilization of PBT in diverse sectors, further driving its market growth in the Asia-Pacific region.

Read the full report : https://www.researchandmarkets.com/r/xfs94q
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Global Synthetic Dye Market to Reach US$ 14.1 Billion by 2034: Research Insights by Future Market Insights, Inc

NEWARK, Del., Feb. 14, 2024 / PRNewswire/ -- Textile remains a strong source of application for the synthetic dyes industry. Despite some setbacks, the textile sector's use of synthetic dyes is increasing, especially in developing economies. Trends in the textile and apparel industry, such as digital printing and on-demand printing, are also contributing to the market's growth. Apart from the textile industry, the food and beverage sector remains a prominent end-user industry for the market. The coloring of food, while frowned upon in certain quarters, is thriving with the help of synthetic dyes. Coloring paper and plastic are other applications of synthetic dyes, keeping the demand diverse while the construction and cosmetics industries sustain the demand Many Western companies are leveraging manufacturing units in the developing world for faster production processes. The availability of cheap labor and raw materials is incentivizing this strategy for companies in the Western sphere. "Synthetic dyes' chemical nature results in mounting regulatory pressure on manufacturers. Synthetic dye producers are addressing these pressures by producing organic and eco-friendly synthetic dyes. Thus, sustainable production is recognized as the way forward for suppliers in the market," says Nikhil Kaitwade (Associate Vice President at Future Market Insights, Inc.).

Read the full report : https://www.futuremarketinsights.com
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Engineering Plastics Global Market Overview Report 2024, with 100+ Company Profiles Including Advansix, CHIMEI, Covestro, Envalior, Invista, Jam Petrochemical, Kuraray, Plaskolite and Taita Chemical

DUBLIN, Feb. 22, 2024 /PRNewswire/ -- The report reviews, analyzes and projects the global Engineering Plastics market for the period 2019-2029 in terms of volume in metric tons and market value in US$ and the compound annual growth rates (CAGRs) projected from 2023 through 2029.

The engineering plastics sector plays a pivotal role in various industries, spanning automotive, electronics, appliances, construction, healthcare, and more. Its robust growth is fueled by the relentless pursuit of high-performance materials that offer durability, versatility, and enhanced mechanical properties. Unlike commodity plastics, which are used for general purposes, engineering plastics are designed for specific applications that demand enhanced performance in challenging environments.

Global volume consumption of engineering plastics, estimated at 27.3 million metric tons in 2023, is projected to reach 34.3 million metric tons by 2029 growing at a CAGR of 3.9% between 2023 and 2029. Global volume demand for engineering plastics recovered sharply in 2021, from a slump of 3% YoY in 2020 due to reduction in demand from automotive & transportation applications amid the impact of coronavirus pandemic, and continued the momentum through 2023, albeit at a low pace amid slowdown in global economy specifically in the European region.

Read the full report : https://www.researchandmarkets.com/r/6orr4z
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Global Phosphate Ester Industry Report 2024: Market to Reach $1.49 Billion by 2030 - Opportunities in Lubricant, Fire Retardant, Surfactant, Hydraulic Fluid, Coatings, and Pesticide Markets

DUBLIN, Feb. 14, 2024 /PRNewswire/ The global phosphate ester market is expected to reach an estimated $1.49 billion by 2030 with a CAGR of 5.6% from 2024 to 2030The future of the global phosphate ester market looks promising with opportunities in the lubricant, fire retardant, surfactant, hydraulic fluid, paint & coating, plasticizer, and pesticide markets. The major drivers for this market are increasing adoption of phosphate esters in various end-use industries and surging demand for various pesticides, herbicides, weedicides, and fertilizers across the globe.

Companies in the market compete on the basis of product quality offered. Major players in this market focus on expanding their manufacturing facilities, R&D investments, infrastructural development, and leverage integration opportunities across the value chain.

With these strategies phosphate ester companies cater increasing demand, ensure competitive effectiveness, develop innovative products & technologies, reduce production costs, and expand their customer base.

Phosphate Ester Market Insights

- Triaryl phosphate ester is expected to witness the highest growth over the forecast period as it is extensively employed in fire retardants and hydraulic fluids.
- Within this market, plasticizer is expected to witness the highest growth as these esters is beneficial in diverse applications for enhancing the characteristics of plasticized polymers.
- APAC is expected to witness highest growth over the forecast period due to existence of rapidly growing economies and presence of major players in the region.

Read the full report : https://www.researchandmarkets.com/r/g6ko89
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Bhel and Coal India Joint Venture To Produce Around 2000t Of Ammonium Nitrate Per Day Using Surface Coal Gasification Technology

A news item that have caught considerable interest recently was concerning two prominent public sector entities in India, Bharat Heavy Electricals Limited(BHEL) and Coal India Ltd (CIL). They cemented a joint venture agreement (JVA), launching a significant collaboration. The agreement outlines plan for the joint production of 2000 Tons Per Day (TPD) or 6.6 lakh tons annually of Ammonium Nitrate. Coal being designated as the primary raw material; synthesis of the end product will require 1.3 MT (Million Tons) annually. The proposed plant is planned to be established at Lakhanpur, Odisha, India, in the vicinity of Mahanadi Coalfields. The financial backing has been secured from the Govt of India. At its core, this Surface Coal Gasification plant (SCG), will use BHEL's indigenous Pressurized Fluidised Bed Gasification(PFBG) technology. Ammonium Nitrate being predominantly sourced from Russia, Germany, and Bulgaria, is significant, with 46,000 Tons imported in September 2023. In resonance with the Govt of India's initiative of Atmanirbhar Bharat Abhiyan (self-reliant economy), this endeavor primarily aims to mitigate dependence on imports. Notably, the primary consumers of Ammonium Nitrate are industries engaged in the manufacturing of explosives, which find extensive use in open-cast mining. Much of the coal mined in India has a high ash content.

In a conventional boiler, coal is burnt in the presence of excess air, resulting in the process of oxidation. The heat produced is used to raise steam, for use in further processes. The combustion emits SOX and NOX in the form of flue gas, which are harmful to the environment. Now, please refer to the figure above. In PBFG, a reduction process occurs, which is the fundamental difference. Oxygen levels are much lower than that required for oxidation. The reaction of high Ash content coal, water, and oxygen under a pressure of about 30 Kg/ cm2 and a temperature of 800 to 1050 deg C in the reactor, yields Syngas, which is predominantly composed of Hydrogen. The high-pressure operation results in a low level of impurities like Sulphur dioxide and Carbon dioxide. These are easily removed in the Syngas cleanup. Processes such as Haber - Bosch and Ostwald are used to make Ammonia and Nitric acid from Hydrogen. Nitric acid is then combined with Ammonia to yield liquid Ammonium Nitrate. The resulting product is solidified and turned into granules through prilling and granulation. The actual process adopted in the project may vary from the method described, as it is dependent on various parameters. As shown in the figure, Syngas is a versatile source for numerous applications. The major challenge in the project is the use of high-ash-content coal. Safe handling of Ammonium Nitrate (explosive)and corrosive agents, safe disposal of wastes are critical concerns. Hydrogen with a high calorific value, when oxidized yields energy and water. It is thus classified as a clean fuel, having little or no detrimental effect on the environment.

The National Coal Gasification Mission, with its ambitious target of 100 Million Tons by 2030, reflects a strategic shift towards cleaner energy production. Concurrently, India's pledge to the Paris Accord of 2015 to gradually reduce CO2 emissions demonstrates a commitment to global climate action. The transition towards a clean energy economy, particularly emphasizing hydrogen-based technologies, indicates a progressive approach to mitigating environmental impacts. As aspirations towards achieving carbon-neutral status by 2070 are articulated, there emerges a collective determination to pave the way for a healthier planet for future generations. Against this backdrop, entities such as CIL and BHEL stand as pivotal players in India's industrial landscape, exemplifying expertise and innovation in their respective domains. CIL's operations encompass vital aspects of coal extraction and supply, catering to diverse sectors including thermal power, steel, and cement industries. Meanwhile, BHEL boasts a rich legacy spanning over five decades, contributing significantly to India's evolution. With strong capabilities in research, engineering, manufacturing, and construction, BHEL stands poised to play a substantial role in India's resurgence, driving innovation and progress across diverse sectors, thereby underpinning the the nation's odyssey toward sustainable advancement.

Source : Team Chemical Market

CELADYNE SECURES $4.5 MILLION TO ACCELERATE INDUSTRIAL DECARBONIZATION WITH DURABLE FUEL CELLS

CHICAGO, Feb. 15, 2024 /PRNewswire/ -- Today Celadyne, the decarbonization and hydrogen solution company, announced that they have raised $4.5M in seed investment funding. The round was co-led by Maniv and Dynamo Ventures, with major participation from EPS Ventures.

Celadyne was founded by Gary Ong, with a Ph.D. in Materials Science and Engineering from the University of California, Berkeley. He got his start at Sputnik Accelerator, and as a fellow at the Chain Reactions Innovations program at Argonne National Laboratory. The company collaborates with fuel cell and utility firms, offering efficient hydrogen solutions to heavy-duty industries such as energy, manufacturing, and transportation. Celadyne's advanced technologies effectively convert hydrogen to usable energy through compact, easy-to-use fuel cells that seamlessly integrate.

"At Celadyne, our mission is simple: unlocking the true potential of hydrogen," says Gary Ong, Ceo & Founder at Celadyne Technologies. "This new funding will accelerate our product in the market as we aim to decarbonize industries like transportation and manufacturing, offering a cost-effective route for green hydrogen production. Our goal is to embrace these industries, helping them contribute positively to the planet."

Specifically, Celadyne's materials and technologies replace the proton exchange membrane to create fuel cells that are more durable, and electrolyzers that are more compact and efficient. This newfound durability allows fuel cells to be utilized as an environmentally-friendlier alternative to diesel engines, and makes electrolyzers that produce low cost green hydrogen as fuel.

"Like many decarbonized energy solutions, widespread hydrogen adoption faces a clear chicken or egg problem," says Jake Wieseneck, Principal at Maniv. "Celadyne is solving both sides of the problem, by creating high-value hydrogen use cases while simultaneously reducing hydrogen's cost to fuel growth. As believers in mobility innovation's ability to catalyze generational change, we're proud to back companies like Celadyne that are enabling a more sustainable future by creating new building blocks for the movement of people and goods."

This latest funding will expand upon capital from Shell Ventures, Sputnik ATX, the Third Derivative Accelerator, and Sandy Spring Climate Partners. Celadyne has been publicly and financially supported for their world-changing hydrogen applications through grants from the US Department of Energy, National Science Foundation, ARPA-E, and Department of Defense - AFWERX. These entities, along with Celadyne's customers, who are Tier 1 automotive leaders shaping the future of mobility worldwide, believe that advanced materials hold the key to unlock the full potential of hydrogen.

"At Dynamo, we believe in the importance of decarbonizing the supply chain," says Jon Bradford, Co-Founder & Managing Partner at Dynamo Ventures. "Celadyne is redefining how logistics can be decarbonized, with their deep expertise and granular understanding of the potential of hydrogen. This investment isn't just the next step – it's the future of energy and mobility as we know it. It's the beginning of a greener, more efficient industry, and planet."

"Eastern Pacific Shipping (EPS) believes in investing in the future of maritime and sustainability," says Gary Ong, Investment Manager at EPS Ventures. "While the shipping industry is vital in our modern world, it is also challenging to decarbonize. We're excited to support Celadyne's growth in creating green hydrogen solutions capable of completely transforming how we conduct these operations. Backing Celadyne means backing a cleaner future for the maritime industry."

This latest funding will expand upon previous capital from Shell Ventures, Sputnik ATX, and the Third Derivative Accelerator and Sandy Spring Climate Partners. The capital will be used to expand on the team's growth with engineers coming from Siemens Energy, Argonne National Lab, The US Navy, Micron Technologies, Hyzon Motors, and Northwestern University. The team will support the ongoing development of Celadyne's materials technology, to create even better fuel cells and expand its usage in electrolysis across its growing list of clients across the US. By year end, Celadyne expects to double its customer base and these developments will open up a whole new world for green

energy applications in industries that are historically some of the harshest on the environment.

Source : Celadyne Technologies

TXU ENERGY INVITES TEXANS TO EXPERIENCE THE POWER AND PERFORMANCE OF EVS AT THE 2024 NORTH TEXAS AUTO EXPO

IRVING, Texas, Feb. 21, 2024 / PRNewswire/ -- TXU Energy encourages drivers to get behind the wheel at the EV Test Track during this year's North Texas Auto Expo, Feb. 22-25, at the Kay Bailey Hutchison Convention Center in downtown Dallas.

TXU Energy is proud to sponsor the largest indoor EV Test Track experience in the Southwest, allowing drivers to feel the power and performance of electric vehicles from top brands like Audi, BMW, Ford, Kia, Mercedes-Benz, and Nissan. Auto Expo attendees will gain firsthand insight into the future of sustainable and efficient transportation.

"With new electric vehicle models being introduced all the time, this is a great opportunity for consumers to experience firsthand what EVs offer. We think it's important to cut through the noise and help consumers navigate the EV experience," said Sam Sen, vice president of TXU Energy Transition Solutions. "TXU Energy is here to help our customers learn how this works – everything from charging to finding rebates and the right electricity plan for your home and EV – it's all part of a cleaner energy future for Texas."

TXU Energy's sponsorship of the EV Test Track builds on existing resources for electric vehicle owners, including TXU Energy Free EV Miles. This first-of-its-kind plan uses electric vehicle data to give customers free home EV charging – every day – and provides power backed by 100% renewable sources for all home energy needs.

Additionally, TXU Energy invites its customers to receive discounted entry into the North Texas Auto Expo. Use promo code TXU when purchasing tickets online *.

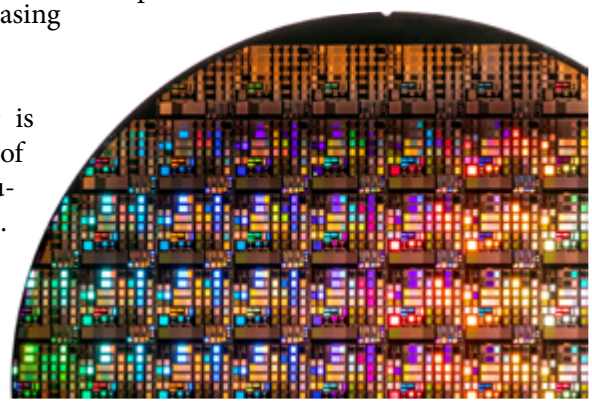
*North Texas Auto Expo offer is only valid online for purchase of adult priced tickets and exclusive to TXU Energy customers. Limit 4 tickets per household. Offer not valid at event kiosks. Expires February 26, 2024. Offer cannot be combined with other offers or special events.

Source : TXU Energy

WACKER'S POLYSILICON PRODUCTION SUCCESSFULLY CERTIFIED TO IATF 16949

Munich, Feb 22, 2024 Wacker Chemie AG has reached yet another milestone in the ongoing qualification of its production sites to international quality standards. After parts of its silicones production in both Burghausen, Germany, and Zhangjiagang, China, were certified to the IATF 16949 standard, its facilities for the production of semiconductor-grade polysilicon in Burghausen, Germany, and at its US site in Charleston, Tennessee, have now also been awarded the coveted certificate. This underscores WACKER's position as a world-leading supplier of ultrapure polysilicon for semiconductor applications in the electronics and automotive industry.

IATF 16949 is a standard developed by the International Automotive Task Force for quality management in the automotive industry. The original focus of the specification was to set out the minimum requirements for organizational structures and quality management systems that must be met by automotive suppliers. Since chemical products and materials are hugely important in the automotive and electronics industry with their stringent requirements on quality, the IATF standard is increasingly being implemented in the chemicals industry too. As a manufacturer of high-quality silicone products for the automotive industry, the WACKER Group already operates production facilities in both Burghausen (Germany) and Zhangjiag-



ang (China) certified to the IATF standard.

Now, two WACKER production facilities for ultrapure polysilicon in Burghausen and Charleston have been awarded this important certificate as well. According to the testing and certification association TÜV NORD CERT, the quality management system in place at both facilities fully complies with the requirements of the IATF standard. "As a market and quality leader, we have been a long-standing supplier of ultrapure polysilicon to all major wafer manufacturers in the semiconductor industry," says Tobias Brandis, President of the WACKER POLYSILICON division. "There is particular demand for our materials in applications of the highest quality level, including those in the automotive industry."

High-performance computer chips are not just integral components of smartphones and tablets alone. They are set to take on more and more important functions in cars in the future, such as autonomous driving. As a result, the polysilicon which is used in those applications and which is supplied by WACKER will also become an increasingly important raw material for the automotive industry. "Many of our semiconductor customers are already certified to IATF 16949. It is therefore obvious that we need to be able to show that our production processes also meet this standard," Brandis explains. "This latest IATF certification signalizes our customers that we are thoroughly prepared for the ever-growing demands and expectations. We are setting a benchmark for the industry in terms of quality and in terms of our quality management system."

To meet the requirements of the IATF standard, WACKER has implemented several innovations. For example, all process risks are now evaluated by using failure modes and effects analyses (FMEAs). Measurement procedures are assessed with measurement system analyses. Furthermore, production control plans have been set up to monitor all processes and analytical systems. "The IATF stipulations by far exceed preceding standards, such as ISO 9001," emphasizes Christian Westermeier, Head of Quality and Customer Management at WACKER POLYSILICON. "Certification to IATF 16949 is a clear sign of our commitment to continue improving our quality management systems and to take them to the next level."

Source : Wacker

BRITIAN'S BIGGEST BATTERY FACTORY WILL BE BUILT IN SOMERSET, AGRATAS CONFIRMS

February 28, 2024 Somerset will be home to a new multi-billion-pound electric vehicle battery manufacturing facility in the UK, it was confirmed today.

Agratas, Tata Group's global battery business, has confirmed that it will build a gigafactory on the Gravity Smart Campus near Bridgwater, Somerset. A significant land holding has been acquired at Gravity, making Agratas the first and primary occupier on the site.

The 40 GWh factory is set to be the biggest battery factory in the country and by the early 2030s will contribute almost half of the projected battery manufacturing capacity required for the UK automotive sector.

To realise the transformative potential of the gigafactory, Agratas will work closely with local and regional partners, including Somerset Council, Bridgwater and Taunton College, and the wider Gravity Smart Campus, to deliver bespoke education and training programmes in the region, creating local jobs for local people.

The factory itself will create up to 4,000 new high-skilled green tech jobs in the area, with many thousands more expected to be created in the UK supply chain.

Thousands of residents living near the site of the future gigafactory campus are set to receive a leaflet through the post this week, introducing Agratas to the community. In addition to providing insight into Agratas' plans, the leaflet invites people to follow Agratas' community WhatsApp channel for regular updates on the site's progress.

As part of a community-first approach, Agratas will also hold an introductory event in the coming weeks for local residents to learn more about Agratas' plans and meet the team.

Tom Flack, CEO, Agratas, said: "Our multi-billion-pound investment will bring state-of-the-art technology to Somerset, helping to supercharge Britian's transition to electric mobility whilst creating thou-

sands of jobs in the process.

"We care deeply about the communities we operate in, so it's imperative to us that we work with, and listen to, our new neighbours as we build our factory in Somerset.

"That's why we'll be holding an event for local residents very soon, so we can share more about our plans and introduce our team to the community."

Preliminary works on the site are in progress, with piling to establish the factory's foundations set to start in Spring.

Construction will be completed in phases, with battery production set to begin in 2026.

JLR and Tata Motors will be Agratas' first customers. Agratas also plans to create batteries for other applications, including two-wheelers and commercial vehicles, as well as commercial energy storage solutions.

The news follows an announcement made by Tata Group last year that it would establish Agratas, a new subsidiary, and that the UK would be home to the company's first gigafactory outside India.

Source : Agratas

KRAIBURG TPE LAUNCHES RECYCLING CONTENT TPE FOR AUTOMOTIVE WITH AT LEAST 73% RECYCLED CONTENT

KRAIBURG TPE has released a new range of thermoplastic elastomer (TPE) products that contain at least 73% recycled content. The new Recycling Content TPE for Automotive series has been designed to fulfil a variety of technical applications. Here, KRAIBURG TPE is also pleased to announce an agreement with Tessi Supply, which will use the grades to produce inlay cases and floor mats.

Automotive manufacturers and the broader automotive value chain are increasingly searching for lightweight and sustainable materials to perform crucial functions and applications. This is for a variety of reasons. Firstly, regulations and laws being passed by governments and regional authorities are tightening up rules on the use of recycled content in vehicles as they seek to transition to net zero economies and societies. For example, new EU regulation proposals on circular vehicle design and end-of-life vehicle management requirements target a recycled material average of 25% per car, including 6.25% from closed-loop post-consumer recycled (PCR) sources. Second, there is growing demand and pressure from end users, both in consumer and commercial circles. Significant portions of the general driving public want to do their bit by using environmentally friendly vehicles, while businesses operating commercial fleets have important ESG criteria to fulfil.

Recycling Content TPE for Automotive – meeting the demand : KRAIBURG TPE is supporting the automotive value chain in fulfilling these demands with its portfolio of sustainable TPE materials. The latest release to market is Recycling Content TPE for Automotive, which will replace the current Interior PIR TPE ranges in 2024 and is available to customers in the EMEA region.

It is a new innovation targeting the automotive market and its need for sustainable polymer materials – the recipe developed by KRAIBURG TPE is a combination of various recycled raw materials that guarantees at least 73% recycled content over a range of hardness ratings (20 to 95 Shore A). Compared to the virgin compound, this represents a 25% reduction in carbon footprint.

All recycled raw material components have been carefully researched and developed to provide more sustainable gains without sacrificing on performance demanded by OEMs and Tier 1 suppliers.

Chosen by Tessi Supply : Because Recycling Content TPE for Automotive covers the full range of hardness, these products can be used to fulfil a variety of automotive applications. Other beneficial properties include a soft touch surface and controlled level of emission and odor, making the range suitable for automotive interiors. Indeed, such is the suitability of the new series, after-sales parts platform Tessi Supply has chosen it to produce inlay cases and floor mats for various car models. The new compounds can fulfill several other automotive interior and exterior as well as powertrain applications, including inlays / anti slip mats, cowls, running board mats and air guide elements.

More sustainable TPEs customers can rely on : In addition to the new Recycling Content TPE for Automotive, KRAIBURG TPE's innovations portfolio comprises a series of material solutions specially developed for automotive, consumer, consumer electronics, wearables and industry applications. With high PCR and PIR content, KRAIBURG products are compliant with multiple global standards . KRAIBURG TPE also provides customers with product carbon footprint values.

Source : Press Release Finder

ST. ELIZABETH HEALTHCARE FIRST IN KENTUCKY TO IMPLANT NEW DEVICE TO TREAT ABNORMAL HEART RHYTHM

EDGEWOOD, Ky., Feb. 16, 2024 / PRNewswire/ -- Doctors with the Florence Wormald Heart & Vascular Institute at St. Elizabeth Healthcare are the first in Kentucky and the Greater Cincinnati region to implant the Aurora EV-ICD™ system — a new device to treat fast or irregular heartbeats and prevent sudden cardiac arrest. J. Christian Hays, MD, Director of Cardiac Electrophysiology at St. Elizabeth Healthcare, performed the procedure on January 12, 2024.

The Aurora EV-ICD system is manufactured by Medtronic and was approved for use by the Food and Drug Administration (FDA) in October 2023

An irregular heartbeat (arrhythmia) occurs when the heart's electrical system quits working correctly. An arrhythmia is also called a heart rhythm disorder. Arrhythmias can cause the heart to stop beating (sudden cardiac arrest). Implantable cardioverter-defibrillators (ICDs) are devices doctors implant in the upper chest to treat arrhythmias. ICDs use thin wires (leads) to monitor the heart for rhythm changes. These leads then send electrical signals to the heart to correct an irregular heartbeat.

Aurora EV-ICD is unlike traditional ICDs, whose leads are threaded through a vein into the heart. Instead, the Aurora EV-ICD system's leads are placed outside the heart and veins. The Aurora EV-ICD is implanted below the left armpit, and the device's leads are placed under the breastbone. Once implanted, the Aurora EV-ICD monitors a person's heartbeat 24/7. If it detects an irregular heart rhythm or one that's too fast, the device sends an electrical signal through the lead to the heart. This signal corrects the heart rate. In cases where a fast heartbeat continues, the Aurora EV-ICD can also send an electric shock to "reset" the heartbeat to a normal pace.

Dr. Hays says the Aurora EV-ICD is highly effective and may also be safer than traditional ICDs. "The Aurora EV ICD is an extravascular ICD with Antitachycardial pacing (ATP) and post shock pacing capabilities," Dr. Hays says. "We are the first in Kentucky, Indiana and certainly Cincinnati to place this new life saving technology."

The Aurora EV-ICD may be a promising treatment option for people who have been diagnosed with arrhythmias, including fast heartbeat (tachycardia) or heart failure. It's also recommended for someone who has had a heart attack or suffered from a previous sudden cardiac arrest.

"We're excited to be the first health system in Kentucky and the Greater Cincinnati region to offer this new-to-market device," said D.P. Suresh, MD, Executive Medical Director of the Florence Wormald Heart & Vascular Institute at St. Elizabeth. "We must offer every life-saving option for our community."

Source : St. Elizabeth Healthcare

SPECIALTY HEALTHCARE POLYMER SOLUTIONS TO BE SHOWCASED BY AVIENT AT MD&M WEST 2024

ANAHEIM, Calif. Avient Corporation will feature its specialty and sustainable polymer solutions for healthcare products at MD&M West next week, one of the leading medical device trade shows in the U.S. These solutions are developed to help solve and comply with the complex challenges and regulatory demands in the industry.

Within its global portfolio of engineered polymers, colorants, additives, and services for medical products, Avient formulates traditional materials and develops bio-based and eco-conscious alternatives for a more sustainable future. Some examples being highlighted at the show include:

Colorants & Additives:

Mevopur™ Healthcare Colorants and Formulations: represent a broad portfolio of polymer colorant solutions developed specifically for today's complex and highly regulated applications. All Mevopur formulations are manufac-

tured across a global network of ISO 13485 facilities, and they meet or exceed requirements for regulations such as USP Class VI, ISO 10993, USP 661, European Pharmacopeia, and ICH Q3D.

Mevopur™ Healthcare Functional Additives: help protect or enhance the performance of polymers used in medical devices, diagnostics, or pharmaceutical packaging. This broad portfolio of additives includes Mevopur chemical foaming agents that can help reduce material use by up to 20 percent, providing another way to increase sustainability in healthcare packaging products.

Mevopur™ Healthcare Bio-based Polymer Solutions: include color and additive concentrates based on polymers with 70-95 percent bio-content and pre-tested raw materials to help reduce carbon footprint. Available in pre-colored formulations, they offer a sustainable drop-in replacement for fossil-based grades and can be processed and recycled in the same channels.

Cesa™ Low Retention Additives: designed for use with polypropylene and polyethylene in a wide range of applications. These functional additives enable the material surface to repel water or other liquids to deliver the last drop out of a package or devices such as pipette tips. They also eliminate the need for secondary coating or wetting processes to achieve equivalent performance while reducing production costs.

Colorant Chromatics™ Transcend™ Premier Healthcare Colorants: high-temperature solutions developed specifically for medical applications. They are available in pre-colored or concentrate form in a range of vivid opaque and transparent colors that are fully bio-compatible per ISO 10993 standards. Based in polysulfone resins, they provide ultra-high-heat resistance and performance without compromising safety while also responding to the needs of extended shelf life. As a result, this offers sophisticated options for demanding and reusable applications subject to multiple sterilization cycles and heavy cleaning. Customized colors and solutions are also available to meet specific needs.

Engineered Polymer Materials:

NEWLY EXPANDED Versaflex™ HC Thermoplastic Elastomers (TPEs): a family of specialty and customizable TPEs with a broad range of performance characteristics and durometers, including grades formulated without animal derivatives, making them useful for countless injection molding or overmolding applications. Furthermore, the portfolio has expanded to include its first bio-based healthcare grade. The Versaflex HC BIO BT218 formulation was developed specifically to handle the complexities of biopharmaceutical tubing and deliver excellent weldability, kink resistance, and low levels of extractables. This bio alternative offers the same performance as its prime counterpart but with a lower carbon footprint.

Trilliant™ HC Healthcare Thermoplastics: feature excellent chemical resistance for applications found in biopharmaceutical processing, hospital settings, and home healthcare applications. The portfolio delivers improved resistance to harsh chemicals and hospital-grade disinfectants over other flame-resistant (FR) polymers such as PC/ABS, PC/PET, and copolyester. Also, the glass-filled polyketone (PK) formulations provide comparable performance to nylon equivalents with the added benefit of a lower carbon footprint for a more sustainable option.

NEUSoft™ Thermoplastics Polyurethanes: a series of ultra-soft TPUs for short-term in-vivo applications. These translucent grades offer good elasticity, abrasion and tear resistance, barrier properties, and good melt strength for use in a host of catheter applications, including cardiovascular, intravenous, and other specialty segments.

As sustainability becomes increasingly important across all industries, Avient recently introduced its third-party-certified Product Carbon Footprint (PCF) Calculator. This cutting-edge tool offers an important data point for the carbon footprint of Avient's materials so customers can better understand the environmental impact of products, meet sustainability goals, and navigate the complex landscape of reducing carbon emissions.

In advance of the MD&M West show, Avient experts will be participating in two educational sessions at the SPE/MPD MiniTec Conference at Anaheim Convention Center on Monday, February 5:

1) 8 a.m. - Fred Birkel, Advanced Application Development & Technical Services Engineer for Specialty Engineered Materials, will present an evaluation of thermoplastic elastomers with antimicrobial additives.

2) 1 p.m. - Ryan Divens, Technology Manager R&D for Color & Additives, will deliver "Navigating PFAS Replacements in the Plastics Industry."

Avient is exhibiting at MD&M West in booth 2301 from February 6-8. Avient will also have experts available to assist customers with application needs, discuss sustainability goals, and share insights into the comprehensive design services and tools that support OEMs and molders throughout product development.

Source : Avient

SYENSQO ANNOUNCES SUSTAINABLE MOBILITY AND TECHNOLOGY COLLABORATIONS AT JEC 2024

Alpharetta, February 19, 2024 - Syensqo, previously part of Solvay group, has for decades contributed to shaping the use of composites across aerospace and automotive by developing innovative lightweight and high performance materials compatible with efficient processing technologies. At this year's JEC World, the company will showcase new advancements and partnerships supporting the trends of electrification, hydrogen propulsion and bio-sourcing as part of its ambition to advance humanity.

"We are proud to showcase our new company and strong focus on sustainability at JEC World 2024," said Rodrigo Elizondo, President of Syensqo Composite Materials Global Business Unit. "The show is the first international event that Syensqo is exhibiting at and we are looking forward to showcasing the legacy that got us here as well as our plans for the future. We have bold ambitions and exciting new partnerships to develop technologies that will have a broad impact in the years to come."

"Syensqo has been a long standing supporter of JEC World, among the most significant composites shows for the industry," said Marc Doyle, Executive Vice President Composite Materials of Syensqo. "We are proud to have a large presence at the event and to use it as a platform to launch cutting edge material innovations serving multiple markets. This year promises to be another vibrant edition!"

Inroads in hydrogen propulsion

Syensqo recently announced its partnership with Climate Impulse, a green hydrogen-powered non-stop flight project around the Earth, that will demonstrate how concrete solutions can help build a cleaner and more efficient world. This challenge is made possible by Syensqo's expertise and technological ingenuity. Syensqo's composites, surfacing and adhesive films will be critical components of the aircraft structure and hydrogen tanks.

New partnerships to enable electric advanced air mobility

Syensqo was selected by Schiebel, manufacturer of unmanned air systems, as advanced material supplier. The Schiebel Unmanned Air System (UAS) CAMCOPTER® S-100 is being operated in the defense and civil sectors. Syensqo's carbon fiber composite materials, used on the fuselage in combination with Titanium, enable a wide range of payload and endurance combinations. The CAMCOPTER® S-100 will be on public display at JEC World on Syensqo's booth.

Syensqo and Manna have signed an agreement for the supply of advanced materials used to manufacture delivery drones. The European company aims to make lightning-fast suburban deliveries affordable, green and safe. Syensqo's lightweight materials will make this possible.

Bio-based carbon fiber innovation advancements

Syensqo is committed to providing its customers with sustainable solutions that support the planet and help them achieve their environmental ambitions, by reducing their Scope 3 emissions.
At the show Syensqo will showcase the work done with Trillium, focused on creating sustainable raw materials for carbon fiber applications. Trillium has made significant progress on the design and installation of a small-scale Bio-ACN™ (bio-based acrylonitrile) facility and delivered initial representative pilot scale samples of Bio-ACN™ to Syensqo. Syensqo has converted the supplied Bio-ACN™ to lab scale samples of a Poly Bio-ACN™ precursor suitable for the creation of research quantities of bio-based carbon fiber. Through 2024 Syensqo and Trillium expect to further advance on their journey towards fully bio-based carbon fiber composites.

Source : Press Release

EXTRAKT AND BECHTEL PARTNER TO COMMERCIALIZE GROUNDBREAKING SOLID-LIQUID SEPARATION TECHNOLOGY

BOWLING GREEN, Ky., Feb. 20, 2024 /PRNewswire/ -- Extrakt Process Solutions, LLC (Extrakt) and Bechtel Energy Technologies & Solutions, Inc. (BETS) today announced their new strategic global alliance. This new partnership marks a significant milestone in

the commercialization of Extrakt's solid-liquid separation technology, known as TNS™, by leveraging Bechtel's trusted experience in engineering and delivering solutions worldwide. TNS addresses the long-standing challenges of mine tailings, dewatering, and product recovery in a sustainable and effective manner.

Bechtel will identify commercial opportunities and provide engineering services to support the alliance, catering to both existing and new customers in the Energy and Mining & Metals sectors. Meanwhile, Extrakt will continue to advance the TNS technology, manage intellectual property, and offer technical services to ensure the success of the partnership.

"Bechtel's strategic alliance with Extrakt for the commercialization of TNS demonstrates our commitment to helping customers deliver on their environmental, social, and governance objectives," said Faisal Mohmand, President of BETS at Bechtel. "We are proud to bring this solid-liquid separation technology to the global market to support the energy and mining industries, address long-standing challenges, and drive sustainable practices for future generations to thrive."

"We are thrilled to team up with Bechtel in the global rollout of our technology, as they are an ideal partner to deliver this transformative solution to our customers." stated William R. Florman, CEO of Extrakt. "TNS, born out of our response to industry dynamics, is a resilient and sustainable solid-liquid separation technology that effectively addresses dewatering challenges prevalent in mining and metals recovery operations. TNS will continue to perform well in presence of clays, making it a versatile and robust solution for delivering notable increases in high-value minerals throughput, cost savings, and reduced environmental impact—a significant departure from conventional practices."

The TNS technology has undergone extensive evolution, marked by advancements in metal recovery, equipment, and water management, and has garnered more than 40 global patents. This innovation creates valuable new options for customers who previously lacked viable solutions for their energy and mining operations. By recovering minerals and materials from previously classified waste, this technology empowers customers to fulfill their sustainability commitments, reducing reliance on virgin resources and embracing an approach that both conserves natural resources and minimizes the environmental footprint linked to mining operations.

Source : Extrakt Process Solutions

ARKEMA SHOWCASES NEW TECHNOLOGIES FOR MORE SUSTAINABLE PAINTS AND COATINGS AT PAINT INDIA 2024

Arkema, a world leader in specialty materials, will highlight new technologies and advancements aimed at increasing circularity, energy efficiency, decarbonization and living comfort through more sustainable paint and coating solutions at Paint India., Hall 1, Booth #D4, February 22-24 at the Bombay Exhibition Center in Mumbai, India

Arkema, first international company to have significantly invested in powder coatings in India, is developing more solutions for low VOC and lower carbon coating technologies in expanding its offer to high solid, waterborne and UV/LED/EB. The Navi Mumbai site includes a modern manufacturing unit and a dedicated laboratory to provide application development and technical support in the area.

Arkema accelerates today the development of more sustainable solutions to support its customers and partners in India to design their next generation of solutions driven by mega-trends.

“Consumer expectations for efficient home and indoor well-being include health, protection, durability, cooler buildings and user-friendly application with minimal environmental impact. said Vivekkumar JAGTAP- Managing Director Arkema Coating Resins.” At Arkema, we are committed to creating materials that advance sustainability as well as performance, and we partner across the value chain to accelerate the development of new solutions.”

Bio-based and bio-attributed coating solutions : Arkema leads in developing waterborne technologies with bio-based raw materials and low carbon feedstock such as:

- Synaqua® bio based waterborne resins with up to 97% renewable based content, combine the performance properties of alkyd-based coatings with the advantages of water-based formulations. This innovation enhances paint performance by reducing emission of hazardous substances and by minimizing the carbon footprint.

- Crayvallac® performance bio additives combine performance & sustainability with their castor derivatives and bio-based polyamide additives. With a bio-content from 60 up to 100%, these rheology modifiers contribute to improve circularity and promote the use of non-fossil feedstocks.

The company will also progressively introduce powder & acrylic based bio mass-balance solutions as a complementary pathway to support our customers with drop-in highperformance solutions, more circular sourcing, and to reduced carbon footprint solutions.

Climate Conscious Technologies for cool surfaces : Arkema offers a range of cool roofing technologies to enhance indoor thermal comfort and reduce air conditioning consumption. These include the unique combination of two resins, Kynar Aquatec®, a super durable reflective paint and Encor®, an acrylic elastomeric

emulsion for waterproofing and durability with 2 additives, Coapur™ PU thickeners for better compatibility and control and Coadis™, a dispersant for improved whiteness and stability.

Energy-efficient Solutions : As industries are facing rising energy costs, stricter emission regulations, and a move towards
a lower carbon intensive applications; Arkema offers energy efficient solutions with Sartomer® UV-LED and EB curing technologies which are low VOC and low carbon intensive coating technologies.

Source : Arkema

NEW PRODUCTS

REDEFINING CLEAN: OXTERS LAUNCHES THE ORIGINAL IN-SHOWER UNDERARM WASH

MEREDITH, N.H., Feb. 15, 2024 / PRNewswire/ -- If you're one of the millions of people who seek clean body care products, but don't always trust their effectiveness, you're in luck. Avoiding both harmful chemicals and body odor can feel impossible. But Oxters, a New Hampshire-based personal care company, is changing that with the launch of their first-of-its-kind, in-shower underarm wash.

Armpits are designed to cool our bodies and remove toxins. Underarms house sweat glands, hair follicles, and over 20 lymph nodes, which provide a warm, and moist environment for bacteria to grow. Clogging these outlets with antiperspirants and deodorants kicks them into overdrive, making body odor even worse. Oxters is revolutionizing underarm care by managing body odor through proper washing – not by masking odor or preventing sweat – because sweat doesn't cause B.O., bacteria does.

For Oxters founders Scott and Chelsea Crowder, health and wellness is a personal mission. Motivated by a family health scare, the two took a close look at everything they put in and on their bodies. After a switch to natural deodorant, they couldn't find a solution for underarm care that was both effective and clean, so they created it.

"When we started researching, we learned the underarms are a complex and misunderstood body part, and from a health standpoint they should be allowed to function as designed," said Chelsea. "We are incredibly proud of the natural effectiveness of Oxters to improve underarm health and performance while removing body odor. It's a 'got to try it to believe it' clean."

Source : Oxters

BEYONCÉ KNOWLES-CARTER INTRODUCES CÉCRED: HAIR-HONORING CARE, VALIDATED BY SCIENCE

LOS ANGELES, Feb. 20, 2024 / PRNewswire/ -- Beyoncé Knowles - Carter announced the launch of Cécred, a new haircare line that honors global traditions while delivering what hair craves: rich conditioners and fortifying protein, patent-pending technology and fermentation, sensorial luxury and exceptional performance for visible strength, moisture and shine. Inspired by hair rituals from global cultures, the products feature an array of butters, oils, honey, and fermented rice water to nourish hair. Cécred launches with the Foundation Collection, eight products

that cleanse, condition, and visibly repair.

"The journey of creating Cécred has taken years, and I'm so proud to finally reveal what we've been working on," says Cécred founder and chairwoman Beyoncé Knowles-Carter. "As a Black founder, it was important to me to concentrate on where I saw the greatest need for healthy haircare and to place scientific innovation and product performance above all else. We started by prioritizing the needs of textured hair like mine, along with other types and textures that need more moisture and strength. My entire life and career, I've worn my hair in so many different ways: natural, flat-ironed, braids, colored, weaves, wigs. I want everyone to have the freedom to express their hair in ways that make them feel good, so I began by creating the essentials for hair and scalp health. My vision is to be an inclusive force of excellence in the haircare industry while celebrating hair rituals across global cultures and helping dispel hair myths and misconceptions on all sides."

Knowles-Carter's passion for haircare is born from lived experience. She grew up sweeping hair in her mother Tina Knowles' salon and saw firsthand how she thoughtfully mixed tech-forward formulas with natural butters and oils to cultivate healthy hair. Knowles joins Cécred as vice chairwoman, bringing her 40 years of influence as a hairstylist, salon owner, and entrepreneur. "In my own experience serving clients, I loved witnessing the joy they felt watching their hair grow healthier, shinier, and more vibrant," says Knowles. "I have personally witnessed how these products have stopped breakage in its tracks. I've seen the transformations from using these products on all different hair types and textures and the results have been amazing."

Knowles-Carter's decades-long career shaped her expertise in maintaining hair health while navigating the coloring, high-tension styles, hair adhesive, sweat, and build-up generated by her life as a performer. Her experiences inspired Cécred to redefine keratin recovery science with its Bioactive Keratin Ferment: a patent-pending technology made from wool-derived keratin, honey, and lactobacillus ferment. Enhanced by the ancient process of fermentation, the keratin proteins are small enough to penetrate deep into the cortex of each strand, closely matching and replacing depleted proteins to visibly repair and strengthen weak or damaged hair. Formulated without silicones which mask damage with an artificial coating, Cécred products deliver moisture and visible strength for a healthy foundation.

Regarding quality and performance, Cécred refused to settle, devoting years of research and testing to the challenges of moisture restoration, strength, and hair health. They conducted extensive clinical, salon, and lab testing, ignoring industry norms and only working with global labs that prioritize inclusive testing. This exhaustive research, development, and evaluation resulted in a performance-driven, expert-vetted, validated range of hair solutions that are beneficial for hair textures from straight to coily and hair states—including virgin, color-treated, chemically processed, and heat-styled—that need extra moisture and strength. This philosophy is core to the Foundation Collection and remains central to the testing and development of all future Cécred lines.

"It's a once-in-a-lifetime experience to work with a founder of Beyoncé's global reach and raw talent to change the narrative in haircare," says Cécred CEO Grace Ray. "It's gratifying to help build an inclusive brand that has benefits for a wide range of hair types and textures. Cécred is a union of visual storytelling, education, and performance, and we are uniquely positioned to service consumers with a prestige, science-validated experience that dispels outdated norms in the haircare industry. I'm honored to join the other brands working to change conversations around haircare."

Knowles-Carter's longstanding commitment to philanthropy has been recognized within various communities. From launch, it is essential that Cécred invests in the stylist community, which globally serves as a sacred space for people's personal hair journeys. Cécred will partner with Knowles-Carter's philanthropic foundation, BeyGOOD, to create the BeyGOOD x Cécred Fund, which honors the knowledge and influence professional stylists have on hair health and the critical importance of advocating for the salon community. An annual $500,000 will fund cosmetology school scholarships and salon business grants. Fostering talent, promoting professionalism, and supporting entrepreneurship within the industry will cement Knowles-Carter's and Cécred's enduring dedication to the professional stylist community.

Cécred's formulas, infused with a signature Temple Oud fragrance, are cruelty-free and formulated under strict global guidelines for ingredient safety. Knowles-Carter's vision is to create a new standard in haircare that breaks down myths and helps to change the narrative in haircare. The Foundation Collection is now available on www.cecred.com.

Source : PRNewswire

HASA ACQUIRES SALT-TO-BLEACH MANUFACTURER CHEM ELEVEN FROM FSTI, INC.

SAUGUS, Calif., Feb. 19, 2024 /PRNewswire/ -- HASA, Inc. (www.hasa.com), a leading provider of Safe, Clean and Clear water treatment for recreational, municipal and industrial water sanitization, announced today that it has acquired Chem Eleven Products, Inc. ("Chem Eleven") and select related assets from its parent company, FSTI, Inc. ("FSTI").

Based in Greenville, Texas, Chem Eleven operates a stand-alone salt-to-bleach manufacturing site serving municipal and commercial water treatment and manufacturing end markets in Northern Texas and the Dallas Ft. Worth metroplex, one of many strategic growth regions for HASA. Since 1964, HASA has been one of the market's leading manufacturers and suppliers of liquid sodium hypochlorite water treatment sanitization products for the recreational, municipal and commercial water management sector.

"For nearly 20 years, Chem Eleven and its parent company FSTI have built a reputation for delivering premium products that achieve best-in-class quality and service," said Chris Brink, CEO of HASA, Inc. "It is for this reason that the site is widely recognized as a trusted and reliable manufacturing facility for the markets it serves. We expect that the combination of this facility, complemented by HASA's additional operating sites, will enhance reliability and service for our valued customers. We share a like-minded approach with the Chem Eleven leadership team to ensure high performance results, and our customer service goals are deeply aligned. Furthermore, this acquisition supports our rapid growth strategy and cements our presence in the Texas market. With this partnership, and the completion of two new state-of-the-art packaging and transfer facilities in the San Antonio and Dallas metropolitan areas, HASA will be in a unique position to deliver incredible value to our existing and future customers."

Scott Trussell, CEO of FSTI, Inc., will join HASA in an executive advisory role and be actively involved in all aspects of HASA integration and enterprise strategy efforts. Trussell added, "The HASA leadership team has a clear vision and strategy to enhance reliability and safety for its employees, customers and stakeholders. This acquisition demonstrates that commitment—one which will undoubtably strengthen HASA's operational capabilities in the Texas region for many years to come."

HASA Acquires Chem Eleven from FSTI, Inc.

Peter Leemputte, Principal at Wind Point Partners, corporate parent entity for HASA, Inc., also had the following comments regarding this pivotal acquisition: "Bolstering our production and service capabilities in Texas is a key component of the HASA value creation plan. Texas represents the third largest recreational pool market in the country and serves as a natural extension of HASA's best-in-class services across the western and southwestern U.S. The acquisition of Chem Eleven accelerates our Texas growth strategy, and we look forward to supporting our customers' growth in the region."

Source : HASC Inc.

HENKEL AND COVESTRO COLLABORATE FOR SUSTAINABILITY OF ENGINEERED WOOD ADHESIVES

- Materials are key to lower carbon footprint across sectors
- Engineered wood adhesives from Henkel based on raw materials from Covestro used in building and construction applications
- Over 60% of the formulated adhesives1 are linked to bio-based feedstocks attributed via mass balance approach

German chemical companies Henkel and Covestro join forces to foster sus-

tainability for adhesives in load bearing timber construction. Such elements, as Cross Laminated Timber (CLT) or Glued Laminated Timber (GLT), can be found in a variety of indoor and outdoor applications of buildings, from staircases to facades to structural elements. For that purpose, materials manufacturer Covestro provides Henkel with polyurethane-based raw materials linked to bio-based feedstocks attributed via the mass balance approach. Henkel in turn uses the supplied products for its high-performance adhesive solutions.

"Collaborations along the value chain with like-minded partners are key to enable a circular and climate neutral world. Materials play an important role for example in reducing the carbon footprint of buildings. With Henkel's new wood adhesive based on Covestro's ever more sustainable raw materials, we jointly contribute to the circular transformation of the construction industry", says Dr. Thomas Roemer, Head of the Coatings and Adhesives Business Entity at Covestro.

Materials are key for sustainability of various sectors

By enabling timber construction, load-bearing adhesives already contribute to sustainability of building structures. Since timber is a natural material, its properties inherently underly bigger variations than most synthetically produced materials. It is for example prone to deformation, inhibiting aesthetics as well as functionality, usually limiting its use in load-bearing or other demanding applications. The solution: Utilizing technologies and processes to bond different layers of wood, like cross-lamination or glue-lamination with polyurethane adhesives. Thereby it is possible to create wood panels that maintain strength, form and functionality over time. By increasing the use of alternative raw materials, the carbon footprint of such material can further be improved.

"This is another step towards an ever more sustainable and circular future. Thanks to our work with Covestro, we are able to supply two of our best-selling polyurethane adhesives now being manufactured using alternative raw materials. In addition and by using the mass balance approach, there is no change in product performance and all load bearing certificates of the adhesives remain. With this, we provide our direct customers as well as architects and construction companies with a solution that contributes to their aim of reducing the impact of materials on the overall carbon footprint of buildings", says Dr. Claudia Meckel, Head of Product Development Engineered Wood at Henkel.

Henkel and Covestro both treat sustainability and fostering a circular economy with high priority. For Covestro, broadening its raw material base with bio-based or recycled solutions is key part of that endeavor. Since such alternatives are blended with conventional raw materials in the manufacturing process, segregation and allocation are challenging. To attribute the used alternative feedstock to a final product, the mass balance approach is therefore used. That is a chain of custody method allowing to mix traditional and alternative raw materials during production, but separating and allocating them to products in bookkeeping. The soundness and compliance of this approach is certified externally by the internationally recognized ISCC PLUS scheme. For the wood adhesive, all involved sites and partners of Henkel and Covestro are certified according to this scheme.

Source : Covestro

EVONIK PARTNERS WITH JLAND BIOTECH TO MARKET VEGAN COLLAGEN FOR COSMETIC APPLICATIONS

The partnership will enable Evonik to provide commercial quantities of collagen for applications in skincare such as anti-aging and hydrating creams.

- Investment from Evonik's Venture Capital group in Jland
- Meets high market demand for vegan collagen for cosmetic and personal care applications
- Next strategic step to expand Evonik's collagen platform

Evonik is partnering with the Chinese company Jland Biotech to market vegan collagen for cosmetic and personal care applications. To maximize the benefits from a long-term, robust partnership, Evonik has invested in Jland Biotech through its Venture Capital group. The partnership will enable Evonik to provide commercial quantities of collagen for applications in skincare such as anti-aging and hydrating creams. The new collagen products, manufactured in collaboration with Jland, will be launched later this year, expanding Evonik's existing product portfolio of vegan collagen. Evonik recently launched its own vegan collagen Vecollage™ Fortify L for cosmetic and

personal care applications.

"Evonik's life sciences division is using its biotechnology platform to leverage the expertise of its partners and collaborate on precision biosolutions. We welcome Jland to our partner network," said Johann-Caspar Gammelin, President of the Nutrition & Care division. "Together with our expertise in active ingredients and delivery systems, we are creating a world-leading portfolio of non-animal derived collagen."

"We value Jland's outstanding approach to innovation and look forward to helping our customers develop the science-based, sophisticated beauty solutions that consumers worldwide are looking for," said Yann d'Hervé, Head of Evonik's Care Solutions business line.

Collagen can be used as a bioactive in cosmetic and personal care applications to improve elasticity and hydration in the skin. Global trends towards sustainability are driving a demand for dermatological solutions with high concentrations of active ingredients. Vegan collagen is of particular interest for formulators developing cosmeceuticals – cosmetic products and bioactive ingredients that are effective in the deep layers of the skin and cater to the rising number of consumers following sophisticated skin regimens.

Jland Biotech is a company dedicated to developing and manufacturing non-animal-derived collagen. It was founded in 2015 and has its headquarters in Jingjiang, China. Jland's core technology is centred around a production process that seamlessly incorporates efficiency and scalability. It develops collagen with multiple cosmetic, medical and food applications. The cosmetic range of collagen is fully registered with the Vegan Society.

Collagen is a protein found in human and animal structural tissues such as bones, cartilage, skin and nails. Currently, most collagen is derived from animal tissue, but non-animal collagen is increasingly in demand. Produced from bacteria or yeast through a controlled fermentation-based process, non-animal collagen is easier to formulate and better absorbed by the skin than animal-derived collagen. Fermentation-based collagen also has low immunogenicity and batch-to-batch variability and is highly reproducible.

Evonik is a specialist 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 and uses fermentation technologies across various high growth markets.

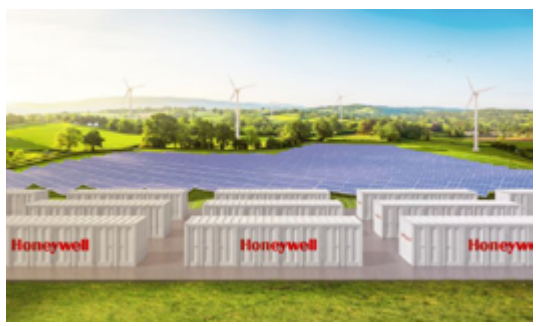
Source : Evonik

INTERNATIONAL NEWS

HONEYWELL INKS MOU WITH TGS FOR VIETNAM'S 1ST GREEN HYDROGEN MANUFACTURING UNIT

Honeywell has officially entered into a Memorandum of Understanding (MoU) with The Green Solutions Group Corporation (TGS) for the Tra Vinh Green Hydrogen project, marking a significant collaboration to establish Vietnam's inaugural green hydrogen plant in the Mekong Delta region.

At the heart of this transformative initiative is Honeywell's Battery Energy Storage System (BESS), a pivotal technology designed to reduce costs, lower carbon emissions, and enhance grid stability through the integration of renewable power sources. The Tra Vinh green hydrogen plant aims to leverage Honeywell's advanced technologies, including project automation design and management, as well as energy management solutions for facilitating the energy transition. The incorporation of BESS is particularly noteworthy, enabling the extension of renewable energy utilization beyond sunlight hours and providing stability to the grid even during periods of low wind power generation.



The MoU signing ceremony, witnessed by the Prime Minister of Vietnam, Pham Minh Chinh, occurred in November 2023 during the COP28 United Nations Climate Change Conference in

Dubai, United Arab Emirates. The platform's ability to stabilize the grid with renewable power sources serves as a key enabler for the production of green hydrogen at the Tra Vinh plant, contributing to both cost reduction and carbon emission mitigation.

In addition to the Battery Energy Storage System, Honeywell is set to provide comprehensive solutions and expertise that cover the entire hydrogen value chain. These offerings are intended to empower TGS to operate the Tra Vinh green hydrogen plant safely, profitably, and in alignment with its renewable energy production goals. Huynh Thi Kim Quyen, Managing Director of TGS, emphasized the strategic significance of the collaboration, considering it a critical step toward the realization of green hydrogen production at the Tra Vinh plant. The Tra Vinh Green Hydrogen Project holds substantial importance for TGS, representing a major landmark and a significant stride towards achieving Vietnam's national objective of decarbonizing the energy sector through the adoption of renewable energy solutions. This initiative plays a crucial role in contributing to a cleaner and more sustainable future for the nation.

Vietnam has committed to achieving net-zero emissions by 2050, recognizing the urgent need to address climate change. The country is identified as one of the top five nations most susceptible to the impacts of climate change, with potential severe social and economic risks. Vietnam boasts significant solar and wind power potential, particularly in the Mekong Delta region, where the Tra Vinh green hydrogen plant is strategically located.

Honeywell's commitment to carbon neutrality by 2035 underscores its dedication to environmental responsibility. The collaboration with TGS for the Tra Vinh Green Hydrogen project exemplifies Honeywell's proactive role in driving transformative solutions for a more sustainable future.

Source : ChemAnalyst

ARCHROMA INTRODUCES ALBAFIX® ECO PLUS, A UNIQUE STATE-OF-THE ART WET-FASTNESS IMPROVER FOR LONG-LASTING COLORS WITHOUT COMPROMISE

Pratteln, Switzerland, 8 March 2024 - Archroma, a global leader in specialty chemicals towards sustainable solutions, has developed a new wet-fastness improver that helps brands and mills produce durable clothing, towels, linens and other textile products with long-lasting colors without compromising on quality or introducing hazardous chemicals.

ALBAFIX® ECO PLUS is a next-generation fixing agent that delivers the strongest possible wet-fastness for all reactive dyes on cotton and other cellulosic fibers and polyester-cotton blends. It will not change the shade of the dyed fabric or negatively impact light-fastness. The breakthrough product also avoids production challenges – such as foaming, acid hydrolysis and migration problems during drying – to promote efficiency and quality output.

Crucially, ALBAFIX® ECO PLUS complies with global eco-standards and initiatives, including Global Organic Textile Standard (GOTS), bluesign® and the Zero Discharge of Hazardous Chemicals (ZDHC) Roadmap.

"With ALBAFIX® ECO PLUS, brands and mills can achieve the strongest possible wet-fastness on cellulose fibers without the drawbacks associated with traditional fixing agents for reactive dyes. This innovation makes it possible to produce high-quality garments and textiles that last longer because they won't fade, stain or bleed when exposed to laundering. At the same time, they comply with current and anticipated industry sustainability standards, enhancing consumer confidence and helping brands verify their green claims," Anish Paliwal, Market Segment Director, CEL & Blends, WO Casual, Formal & Home Textiles, said. He also added, "This is all part of our newly launched Super Systems+ that help textile and apparel brands, retailers and mills positively impact their economic and environmental sustainability, and reflects Archroma's commitment to delivering a more sustainable ecosystem."

ALBAFIX® ECO PLUS is suitable for jet applications, and for other dyeing and washing equipment with vigorous liquor circulation, and can also be applied by exhaustion, by padding or from the last bath of the soaping process after dyeing or printing.

Like ALBAFIX® ECO, the latest addition to the ALBAFIX® family has a positive influence on chlorine-fastness. When applied with double fixing, it achieves the same high performance on polyamide and PA/Elastane fabrics, as it does on cellulosic fibers. This makes it ideal for the production of swimwear, as well as sportswear and outdoor clothing.

Source : Press Release

Magic Molecules Surfactants In Action

Introduction

In the intricate tapestry of daily existence there exists a silent protagonist, scarcely noticed but wielding profound influence - Surfactant. In their presence barriers dissolve and boundaries blur, displaying a type of magic. Disparate substances coalesce harmoniously in their proximity. They permeate the very essence of modern life by their use in a myriad of consumer products. In this article, we introduce you to the basics of this wonderful family of molecules. This article describes in short, Surfactant properties and Surfactant applications.

Background

Surfactants - a short form for surface active agents, consist of molecular chains. These compounds lower the surface tension between two substances such as between liquid and solid or between two solids. A majority of these types of molecules have a water-attracting part (hydrophilic) and a water-repelling part (hydrophobic). Each of the molecules has a head and a tail. If the head carries a positive electrical charge it is termed a Cationic surfactant. However, if it is negative, it is called an Anionic surfactant. Some carry no net charge and are termed non-ionic surfactants. Other important categories are Amphoteric and Biodegradable types. The above properties enable a surfactant to form a layer between surfaces, effectively reducing surface tension. A classic example of this application is the use of detergent to remove dirt from clothes. Dirt sticks to clothes, and the detergent lowers this stickiness (surface tension), allowing water to wash it away. In the following paragraph, we will describe some of the common Types of Surfactants and their usage.

Common Surfactants

- **Anionic Surfactant** - They posses a positively charged head group when dissolved in water. Examples include Sodium Lauryl Sulphate (SLS) and sodium dodecylbenzene sulfonate (SDBS). They are used in body washes, laundry detergents, toothpaste, and shampoos.

- **Cationic Surfactant** - Characterized by a positively charged head when dissolved in water, examples include

Cetyltrimethylammonium bromide (CTAB) and cetylpyridinium chloride (CPC). They are frequently employed as emulsifiers in personal care products like hair conditioners and fabric softeners.

- **Non-Ionic surfactants** - They do not carry a net charge when dissolved in water. Examples include Polysorbate 20 and Alkyl poly glucosides (APGs). They are milder on the skin and cause less irritation compared to Anionic and Cationic Surfactants. Used as an emulsifier in cosmetics, medical care, and pharmaceutical products.

Another important Surfactant is Sorbitan Monostearate which is derived from Sorbitol and Stearic acid. Also known as Span 60, it is an emulsifier and a stabilizer. Used in ice cream production, the emulsifier distributes the fat molecules evenly, resulting in an even texture and preventing the formation of ice crystals. Stabilizers prevent the melting of the ice cream too quickly.

- **Amphoteric Surfactants** - They have both positive and negatively charged functional groups in their molecules. One example is Cocamidopropyl betaine (CAPB), utilized as a foam booster in mild cleansing formulations like baby shampoos, face cleansers, and hand soaps.

- **Biodegradable Surfactant** - These surfactants can be broken down into simple compounds by natural processes. They reduce the Environmental impact of Surfactant usage. Alkyl polyglucosides (APGs), used in household cleaners are an example. Other prime examples are some ethoxylated surfactants, used in pharmaceuticals as emulsifiers, stabilizers, personal lubricants, and spermicides.

Raw Materials

Some of the raw materials used in Surfactant Formulation are listed below :

Alcohols - Both natural and synthetic types, including Fatty lauryl and Cetyl alcohol.

Fatty Acids - Derived from natural sources from vegetable oils and animal fats for the production of lauric, oleic, and stearic acids.

Sulfur Trioxide - Including its derivatives and with the process of sulphonation, a category of sulphonated Surfactants is produced.

Alkyl Halides - Bromides and chlorides of this group are used in the synthesis of Cationic Surfactants.

Amine Compounds - Alkinolamines are used in the production of amphoteric Surfactants.

Sodium and Potassium Hydroxides - Used in the process of saponification, these alkalis are combined with fatty acids to synthesize soap-based Surfactants.

Standards - Some of the Surfactant properties and Surfactant applications have been detailed above. A few of the Indian Standards pertaining to Surfactants are listed hereunder:

IS 7884 - Shampoo Surfactant based.

IS 4955 - Household laundry detergent powders.

IS 3986 - Sodium Lauryl Sulphate for Cosmetic Industry

IS 11487 - Sodium Lauryl Ether Sulphate for Cosmetic Industry.

IS 4956 - Synthetic detergents for Industrial purposes (Anionic Detergents)

IS 7597 - Surface Active Agents - Glossary of terms

Conclusion - From the refreshing lather of shampoo in the mornings, to the meticulous cleaning rituals of household chores, to the ice creams we binge on, to the ultra smooth baby creams, Surfactants are everywhere. They have woven themselves unassumingly into our lifestyles. However, it is imperative to acknowledge their potential contribution to environmental degradation. Addressing this concern remains an ongoing endeavor for humanity, ensuring that the benefits of surfactants are balanced with responsible usage and Environmental stewardship.

Source : Chemical Market

Urban Water Treatment

Introduction

In the bustling thoroughfares of urban existence, there exists a silent provider: Water supply systems. The maze of pipes that lie beneath the city's surface, mirrors the complexities of human relationships. It is amidst the ceaseless movement of city life, that one finds the true essence of Urban water infrastructure - a narrative of sustenance, progress, and the unseen forces that bind us together. From the grand boulevards adorned with majestic fountains to the humble tenements where taps trickle with life-giving sustenance, every corner of the city is touched by this network. From ancient aqueducts that harnessed the power of gravity to modern engineering, the evolution of water supply systems reflects humanity's relentless quest for progress. In this article, we attempt to give a comprehensive view of urban Water supply systems.

Typical process

Please refer to the figure above. Detailed below are the individual components:

Water source - Typically the intake is from a barrage, large lake, or riverbed. Raw water is pumped into a coagulation tank using electric motor-driven pumps.

Coagulation - If you hold a glass of untreated water against light, it will be hazy. This is called turbidity due to the fine suspended particles. It should not be confused with chemical contamination. Aluminium Sulfate or Alum is added to the water causing fine suspended particles to clump together.

Aeration and sedimentation - Water falls in thin sheets over several steps. As these steps are in cascade, the water absorbs oxygen leading to oxidation, killing some amount of bacteria. However certain volatile compounds are removed. Sediment from the coagulation process above is removed.

Filtration - If there are organic, chemical, or pesticide contaminants, the filtration process through activated carbon is used. It works through the process of adsorption, where the contaminants adhere to the surface of the carbon particles.

Disinfection and final treatment - The addition of chlorine in its gaseous form is injected into the water by pipes. They kill harmful organisms in the water. Chlorine dioxide can also be used and is effective against a broader range of microorganisms. Ozone is another gas that can be used. It is a very powerful oxidizing agent which effectively kills bacteria and viruses. It also removes color, taste, and odour causing compounds.

Advanced treatment:-

pH Adjustment and water softening- Compounds like Calcium Hydroxide (lime),

Sodium Hydroxide (Caustic soda), Sodium Carbonate (soda ash), etc. are carefully dosed and monitored to ensure that the treated water pH value falls

within the desired range.

Anti Corrosion agents - These are added to prevent corrosion in the pipes of the distribution system. Sodium or Zinc orthophosphates, Polyphosphates, and sodium silicate are some of them. They form a protective layer in the interior of the pipes forming the Drinking water distribution system and thus prevent corrosion from dissolved oxygen and other substances.

Water Quality Management

In India, the quality of water supplied to towns and cities is governed by IS 10500 - 2012 titled: Drinking Water. Assistance for making this standard has been taken from :

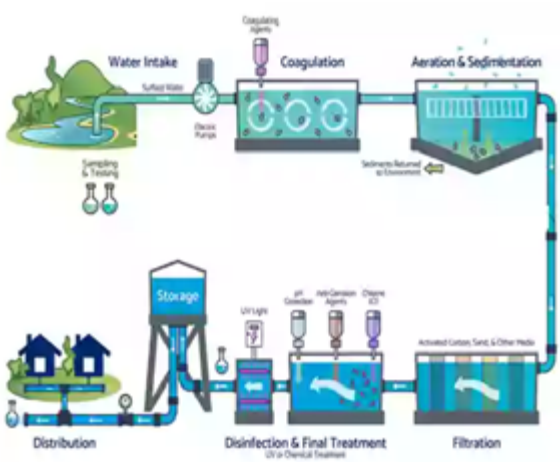
- EU directives 80/778/EEC and 98/83/EC
- USEPA standards EPA - 816- F - 02-013 DT 2002
- WHO guidelines 2008
- Manual on water supply and treatment, May 1999, Ministry of Urban Development, New Delhi.

Acceptable levels and the method of testing for the following parameters are specified therein :

- Bacteriological
- Virological
- Organoleptic
- Physical
- Undesirable substances
- Toxic substances
- Radioactive substances
- Pesticide residue

It should be noted that much of the water treatment which is a part of Urban Water Infrastructure depends on the quality of water received at the input stage. Coagulation, aeration, filtration, and chlorination stages will most often be present.
Various companies in India have business operations in this field. A few of them with their broad range of activity are listed below :

- Lanxess India Pvt Ltd - Ion exchange resins, Microbial control agents.
- Ion Exchange India Pvt Ltd - Water treatment plants, Ion Exchange resins, Instrumentation and Automation.



- SMPL Infra Ltd - Smart City Infra. Includes IT-enabled integrated water management system.

Groundwater : India is a growing economy. One of the sure signs of this is the expanding geography of our towns and cities, especially on the periphery. It sometimes takes months if not years for urban water supply to reach these parts. The only solution is groundwater. This is accomplished by either a borewell on the premises or a supply of groundwater from wells and borewells through water tankers.

- Groundwater could contain some of the following impurities:
- Arsenic, lead, cadmium, etc through leeching from natural mineral deposits or industrial activity.
- Nitrates and nitrites from fertilizers and animal waste.
- Dissolved minerals such as calcium, magnesium, etc cause water hardness and scaling in pipes.
- Organic compounds such as pesticides and industrial chemicals.
- Sulfates from rock weathering
- Chloride ions intrusion from seawater.
- Pathogens

Each one of the above has detrimental effects on health when their levels exceed specified limits. To mitigate the above, the following processes are used to make Potable water delivery possible :

- Ion exchange resins for the removal of dissolved ions in the water. Causes softening of water and removal of nitrate sulfate and heavy metals.
- Reverse osmosis removes the majority of dissolved contaminants like organic compounds, dissolved salts, and minerals.
- UV(Ultraviolet) light, typically of wavelength 254 nanometres. Bacteria and protozoa exposed to this light are unable to replicate. Their DNA is destroyed by UV light.
- Filtration for the removal of suspended solids. This is done using activated carbon or ceramic filters.

Conclusion

Our endeavor in this article was to offer a comprehensive view of the subject. However, as with any system devised by human ingenuity, challenges emerge when extending its reach to newer territories. Such expansions invariably confront technical hurdles, where every turn presents a new obstacle to navigate. Yet amid these challenges, there exists an enduring pursuit: a journey in search of untainted aquifers and untapped reservoirs. This pursuit is not for the sake of novelty, but is driven by a fundamental imperative: to safeguard the well-being of our urban denizens for generations to come.

Technological advancements often yield improvements in the quality of water

supply. From primitive filters, we have propelled ourselves into sophisticated filters of the modern era. Each stride forward has brought us a step closer to the elusive ideal of pristine water.

For, in the seemingly mundane task of treating water lies a profound truth: neglect is the harbinger of affliction. A casual approach in its operation could raise the specter of gastrointestinal diseases. Again a reminder that the price of indifference is not paid in coin but in suffering.

Source : Team Chemical Market

Goodfellow S Material World Drives Significant Growth Since Private Equity Investment

Tapping into new opportunities in fusion energy, battery technology and specialist R&D projects has helped a Huntingdon-based specialist metals and material supplier boost sales by recording annual double-digit growth since receiving private equity investment.

Goodfellow, which employs more than 100 people at its Ermine Business Park facility, has overcome global issues with supply chain disruption and rising energy prices to post a £4m rise in turnover in the first full two years following its acquisition by Battery Ventures.

This growth has been achieved by the firm's ongoing investment in stockholding, its expert team of technicalscientists and bespoke processing services that continue to be a valuable resource for R&D departments and scientific specialists looking to push the boundaries of innovation that achieve cutting-edge applications.

"Our specialist materials are used in some of the world's most challenging projects, and we often tend to be a critical partner to emerging global sectors and we are seeing this with electrification and high-profile fusion technology," explained Simon Kenney, Chief Executive Officer of Goodfellow.

"There is no doubt that this track record has been crucial in helping us reverse a general downturn in our sector

to continue to grow over the last twelve months and we have to tried to leverage our market position by introducing three new ranges last year, including Custom Alloy Powders, Microfoils and Rare Earth Oxides."

He continued: "This year we are hoping to introduce Metal-organic Frameworks (MOFs) to our offer and, due to their tunable large surface area and high porosity, can be used for applications including catalysis, carbon capture adsorption processes, gas sensors, energy storage and drug delivery systems."

2024 will be another big year for Goodfellow, with a new brand and website launch planned for early April that will better reflect the company's expanding global reputation whilst supporting customers' needs to buy products online.

There will also be the culmination of a significantinvestment in a new ERP system that is being installed to support the firm's complex range of 170,000 catalogue products and the growing success of its bespoke processing services.

Simon, who joined the business in 2016 continued: "The improvements we are making this year are all about improving the customer experience, whether that is shortening already industry-best lead times or making sure technical data is easier to access through our new online platform.

"We offer nearly 98% of our stock range within 48 hours and with no minimum order quantities, which means we can supply small organisations with materials quickly for prototype work, and also large institutions that are challenging the way we create and store energy, power transport and save lives."

He concluded: "There are massive strides being made in the medical field, which are leveraging the properties of our innovative materials and Goodfellow's design process that provides samples and technical support to aid development of new solutions. This includes innovation in cochlear implants and pacemakers."

Goodfellow is expecting to achieve a similar level of growth this year through organic increases in sales and the possibility of future acquisitions.

Source : Press Release

Archroma Highlights Economic and Environmental Sustainability at Bharat Tex 2024 with Super Systems+

Pratteln, Switzerland, 21 February 2024 - Archroma, a global leader in specialty chemicals towards sustainable solutions, is bringing its latest innovations, including its new Super Systems+, to Bharat Tex 2024 to help textile and apparel brands and mills positively impact their economic and environmental sustainability.

Super Systems+ are powerful end-to-end systems that combine fiber-specific processing solutions and intelligent effects. The Super Systems+ suite encompasses wet processing solutions that deliver measurable environmental impact from sizing to finishing; durable colors and functional effects that add value and longevity to the end product; and cleaner chemistries that eliminate harmful or regulated substances.

"India is known for the rich heritage of its textile industry and for embracing innovation and technology. With mills here helping to lead the global shift to sustainability, ESG and circularity in fashion, we are pleased to present Super Systems+ that offer greater resource savings, improved productivity and a reduced environmental footprint," Anjani Prasad, Vice President of South Asia, Archroma Textile Effects, said.

Super Systems+ leverage the industry's broadest product portfolio and authentic evidence-based data to enable brands and mills to achieve their desired level of sustainability.

Visitors to the Archroma booth will also be able to explore The SafeEdge by Archroma, a unique online portal that gives Archroma customers and brands real-time access to product-related regulatory and compliance certifications and information, as well as the Archroma ONE WAY Impact Calculator, a process simulation and calculation tool that covers processing costs, resource utilization, effluent discharge quality and CO2 emissions.

Meet the Archroma team at Bharat Tex 2024

Attracting leading lights from across the textile world, Bharat Tex is a mega-fair organized by a consortium of 11 textile export promotion councils in India. Bringing technology and tradition together, it is the world's largest textile exposition and a global showcase of sustainability and style. Bharat Tex 2024 will take place from February 26 to 29 at Bharat Mandapam and Yashobhoomi in New Delhi, India.

Source : Press Release

Belden Launches Hirschmann BXP (BOBCAT eXtreme Performance) Managed Switch

Venlo, The Netherlands – February 21, 2024 – Belden Inc. (NYSE: BDC), a leading global supplier of network infrastructure and digitization solutions, today announced the launch of its Hirschmann BXP (BOBCAT eXtreme Performance) managed switch. This extension of the proven BOBCAT switch family from Hirschmann, a Belden brand, offers a compact design, enhanced flexibility and interoperability, and speeds of up to 10 gigabits per second (Gbps) to meet the dynamic needs of railway rolling stock applications.

As train builders and operators look to connect more onboard equipment – including data-intensive, high-speed cameras and internet devices – they need a strong network backbone to provide continuous uptime and accurate data transmission. With its powerful combination of features, including a compact footprint, high port count, up to 10 Gigabit Ethernet (GE), Power over Ethernet (PoE++), and protocols like high-availability seamless redundancy (HSR) and parallel redundancy protocol (PRP), the ruggedized BXP can withstand harsh environments on moving trains.

The BOBCAT managed switch provides powerful benefits, such as:

- **High port density,** including 20-port and 28-port variants, to connect more network devices.
- **Robust bandwidth and speed** with up to 6x 10 GE ports, future-ready for expansion.
- **PoE ++ up to 120 W** to meet the high power demands of onboard devices.

"The BXP is the first BOBCAT switch designed for the specific requirements of railway rolling stock with unique features like the highest port density and fastest speeds in our portfolio," said Santosh Chandrashekhar, Product Manager. "BXP adds value through simplified web-based configuration, flexible Layer 2 or Layer 3 switch configuration options, and advanced security via the Hirschmann Operating System (HiOS). With its combination of high port counts, PoE++ and low maintenance requirements, the BXP also delivers low total cost of ownership."

The BXP managed switch meets essential railway rolling stock standards, such as European Standards EN 50155 and EN 50121 and EN 45545, for shock, operating temperature, electromagnetic interference, vibration, fire resistance and other conditions. The BXP has attained multiple international and industry certifications – including Conformité Européenne (CE), International Electrotechnical Commission (IEC), and Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Source : Press Release

Perstorp Launches New State-of-The-Art Penta Plant in India

Malmö February 21, 2024 - Sweden-based specialty chemicals innovator Perstorp has built and commissioned a state-of-the-art, ISCC Plus certified, plant in western India to meet growing market demand for Penta chemicals. Located in Sayakha, Bharuch, in the state of Gujarat, the facility is officially inaugurated on Feb. 20.

"This is the largest investment in Asia so far, in Perstorp's history. It will further strengthen Perstorp's position as a sustainable and reliable partner in the region of Asia," noted Gorm Jensen, Perstorp's Executive Vice President Commercial & Innovation.

"This plant will increase the availability and reliability of products for current, as well as new customers, reducing lead times with about 50% for Asian customers. It is strategically located close to ports, rails and roadways. This will help to ensure that Perstorp can supply products effectively throughout India and across all of Asia. At the same time, the plant is well positioned to also export products globally."

In Sayakha Perstorp will produce a Penta product mix including Perstorp's renewable based, ISCC PLUS-certified grade, Voxtar™, as well as offering Penta Mono and Calcium Formate. The plant will use renewably sourced raw materials as well as a hybrid source of electricity. Voxtar is a renewable based counterpart to Penta. Based on a traceable mass balance concept, Voxtar is designed to reduce the carbon footprint throughout the value chain and to support sourcing of renewable

and recycled raw materials. As Voxtar is chemically identical to Penta, it provides customers with the same quality and performance as their fossil counterpart.

Perstorp already produces Penta in Sweden, Germany and the United States, but this investment will represent a significant expansion of its global production capacity. At the new site, Perstorp has the capacity to annually produce 40,000 metric tonnes of Pentaerythritol and 26,000 metric tonnes of calcium formate.

"This is a major investment that Perstorp has been projecting for several years and we are very excited to inaugurate this state-of-the art plant and better serve our current and future customers", Vinod Tiwari, Managing Director and General Manager India concludes.

Source : Press Release

BASF Coatings signs Global Preferred Partnership Agreement with INEOS Automotive for its Global Body and Paint Program

- **For the next three years, BASF will help INEOS Automotive build its global body and paint program focusing on the highest level of industry standards and sustainable refinish solutions**
- **With its premium refinish brands Glasurit and R-M, BASF will provide expertise and paint innovation to develop body shop network requirements for the INEOS Grenadier worldwide**

INEOS Automotive and BASF's Coatings division have signed an agreement on a global automotive refinish body and paint development. The partners will commit to a long-term strategic collaboration that enables them to exceed the industry standard in vehicle body repair and paint refinish. The partnership includes the supply of sustainable refinish solutions, expertise and latest digital color-matching solutions and training.

"We are very happy to partner with BASF to develop a world-class sustainable paint program in the next few years which follows the highest quality standards in paint-work repairs for premium vehicles," said Steve Graham, Global Head of Aftersales, INEOS Automotive. "With BASF's technical support and management experience in the latest body shop standards, the INEOS Automotive network can now rely on a partner that shares our commitment to excellence in customer service."

BASF will ensure that the most sustainable and efficient refinish practices are maintained at the highest level to the INEOS body shop network in Europe, North America, and Asia Pacific.

"There has never been a more exciting time to be in the automotive industry and we are delighted to have the opportunity to broaden our engagement with INEOS Automotive. With our highly innovative portfolio of solutions now setting the industry standard, we look forward to aligning and complementing INEOS' vision with our own strategic principles to drive a new, strong, and rewarding partnership," said Chris Titmarsh, Senior Vice President, Global BASF Automotive Refinish Coatings Solutions.

INEOS collaborates with BASF Coatings as a partner in surface technology for its first offroad vehicle, the INEOS Grenadier, manufactured in Hambach, France, since 2021. With the new agreement, BASF broadens the partnership with INEOS in the implementation and development of the body and paint program for both the INEOS Grenadier and the newly launched double-cab pick-up variant called the Quartermaster.

Source : BASF

Significant Role Of Pearlescent Powders In Optical Coatings

Recently, technology has brought changes to how we create coatings for things like glasses and lenses. One key player in these changes is using special chemical powders called pearlescent powders. These powders have unique qualities that improve optical devices functioning and enhance their appearance.In this article, we'll talk about how pearlescent powders are making a difference in optical coatings and the new technology that's making them part of different uses. So, let's begin to learn the complete details!

Understanding Pearlescent Powders:

These chemical powders are tiny particles that show off a pearly and colorful effect when added to coatings. They have materials like mica, titanium dioxide, and other minerals. When these powders interact with light, they create lively and shifting colors like pearls. Because of these qualities, pearlescent-powders are the best option for optical coatings. They not only add to how things look but also bring functional advantages.

Advancements in Technology:

Here are some of the advances in technology in these chemical powders:

Making Light Work Better:

New developments in pearlescent powder technology aim to make light work better in optical coatings. These powders can get the best design to reflect, absorb, or let through specific light colors. It means we can have more control over how coated surfaces deal with light. This breakthrough helps create coatings that are better at reducing reflections, letting more light through, and showing colors more accurately.

Precision with Nanotechnology:

Tiny technology, called nanotechnology, has been very essential in making pearlescent powders even better. By working on a small scale, manufacturers can control how these powders affect light very precisely. It involves manipulating the size and arrangement of the particles at the nanoscale. The result is coatings that perform even better optically, scatter less light, and last longer.

Stacking Up Layers:

Nowadays, pearlescent-powders are popular in coating systems with multiple layers. Each layer has these powders with different optical powers. This stacking technique helps make coatings that can control light in specific ways, opening the door to advanced displays, top-notch lenses, and flexible optical filters.

Tough and Eco-Friendly:

Technology has also tackled the durability and eco-friendliness of optical coatings. Smart manufacturing lets us put pearlescent powders into coatings that resist scratches, wear and tear, and the effects of the environment. There's also a push to find sustainable ways to get these powders, ensuring they align with the increasing demand for eco-friendly technologies.

Smart Coatings:

Exciting progress in these chemical powders has led to coatings that are smart and responsive. These coatings use materials that can change their appearance when faced with temperature, light, or humidity. It means they can adapt to different surroundings. Imagine this technology in adaptive eyewear, clever windows, and other optical devices that can adjust to changing conditions.

Quantum Dots for Better Colors:

These chemical powders are teaming up with quantum dots, tiny crystals that can be adjusted to show different light colors. Together, they create coatings that give us more control over the colors we see. It is essential in industries like professional photography and medical imaging, where getting colors just right is a big deal. Pearlescent coatings on solar panels increase light absorption and reduced reflection, enhancing overall energy conversion efficiency.

Flexible and Stretchable Optical Coatings:

Thanks to progress in materials science, we now have coatings with pearlescent powders that are flexible and stretchable. These coatings can fit onto all sorts of shapes and handles being stretched without losing their optical abilities. It is best for wearable tech, where things like flexible displays and optical sensors need coatings that can adjust to the curves of our bodies, making them work well and feel comfortable.

Helping in Medicine:

Pearlescent powders are also making a mark in medical optics. They're not just used for imaging but also for medical treatments. Coatings with special optical powers help doctors see tissues and organs better in medical images. Additionally, these coatings can interact with specific kinds of light for targeted therapies, showing how versatile pearlescent powders are in pushing forward medical technologies.

Conclusion :

Mixing pearlescent-powders into optical coatings is like changing the game in optics. Technology has not just made optical devices look better but has also made them work even better. As scientists and engineers keep exploring this field, we can look forward to more unique ideas that will influence how optical coatings perform, how long they last, and how eco-friendly they can be. It could affect many different uses and make optical devices even best in the future.

Source : Promotional Chemical Market

Henkel Delivers Very Strong Organic Sales Growth And Significant Earnings Improvement In 2023

Mumbai: "Despite market challenges, Henkel achieved robust growth and improved profitability in 2023, surpassing initial forecasts," said Henkel CEO Carsten Knobel. "We experienced strong organic sales growth, particularly in Adhesive Technologies and Consumer Brands. The integration of Laundry & Home Care and Beauty Care into the new Consumer Brands unit progressed ahead of schedule, contributing to our overall performance. In Adhesive Technologies, organizational realignment and customer-centric approaches drove sales and earnings growth amidst industrial volatility. Strategic acquisitions further bolstered both business units. I would like to sincerely thank all Henkel employees for your teamwork and dedication which enabled us to navigate our company through these challenging times."

Group sales and earnings performance in fiscal 2023

Henkel Group sales reached 21,514 million euros in fiscal 2023, a nominal decrease of -3.9 percent compared to the prior year. Foreign exchange effects negatively impacted the sales development by -4.3 percent. At -3.9 percent, acquisitions/divestments had a negative impact on sales, which was mainly due to the divestment of the business activities in Russia. Organic sales growth was very strong at 4.2 percent. This development was driven by a price increase in the high single-digit percentage range, while volumes declined. In the second half of the year, however, there was a clear sequential improvement in the volume development.

The Adhesive Technologies business unit generated strong organic sales growth of 3.2 percent, which was driven by the business areas Mobility & Electronics, as well as Craftsmen, Construction & Professional. The Consumer Brands business unit achieved very strong organic sales growth of 6.1 percent, driven particularly by the Laundry & Home Care and Hair business areas.

Adjusted operating profit (adjusted EBIT) significantly increased by 10.2 percent to 2,556 million euros (previous year: 2,319 million euros). Positive selling price developments, ongoing measures to reduce costs and enhance production and supply chain efficiency, and portfolio optimization measures more than offset negative impacts on Group profitability from continued high prices for direct materials and logistics.

Adjusted return on sales (adjusted EBIT margin) in fiscal 2023 was significantly higher year on year at 11.9 percent (2022: 10.4 percent).

Adjusted earnings per preferred share also increased significantly by 11.5 percent to 4.35 euros (previous year: 3.90 euros). At constant exchange rates, adjusted earnings per preferred share increased by 20.0 percent.

Net working capital as a percentage of sales amounted to 2.6 percent, thus coming in substantially lower than the prior-year level (2022: 4.5 percent) particularly due to lower inventories.

Free cash flow reached a new high of 2,603 million euros, representing a significant increase compared to the previous year (2022: 653 million euros). This was due to much higher cash flow from operating activities resulting from higher operating profit and lower net working capital.

As a result, the net financial position improved significantly to 12 million euros

(December 31, 2022: -1,267 million euros).

The Management Board, Supervisory Board and Shareholders' Committee will propose to the Annual General Meeting on April 22, 2024, an unchanged dividend compared to the previous year of 1.85 euros per preferred share and 1.83 euros per ordinary share. This equates to a payout ratio of 42.4 percent, slightly above the target bandwidth of 30 to 40 percent.

Business unit performance in fiscal 2023

In fiscal 2023, sales of the Adhesive Technologies business unit reached 10,790 million euros and was thus – due to negative foreign exchange effects – nominally -4.0 percent below the previous year's level. Organically, sales increased by 3.2 percent. This sales growth was driven by a very strong price development compared to prior year. Volumes declined overall, mainly due to demand remaining muted in some key end markets. As the year progressed, volume development showed a sequential recovery, recording a stable level in the fourth quarter.

Sales in the Consumer Brands business unit totaled 10,565 million euros in fiscal 2023 and was thus -3.3 percent below the prior year in nominal terms. Foreign exchange effects reduced sales by -4.4 percent.

Outlook 2024 : Moderate growth in global economic output is expected for 2024. This assumes a moderate increase in both industrial demand and consumer demand in key areas of the consumer goods business for Henkel.

Henkel expects to generate organic sales growth of between 2.0 and 4.0 percent in fiscal 2024, with both business units anticipated to grow within this range. Adjusted return on sales (adjusted EBIT margin) is expected in the range of 12.0 to 13.5 percent. For adjusted earnings per preferred share (EPS) at constant exchange rates, Henkel expects an increase in the range of +5.0 to +20.0 percent.

Source : Press Release

Evonik's new TROGAMID® eCO Impact 75 offers manufacturers higher clarity, strength and sustainability

Evonik has just launched the impressively sturdy, TROGAMID® eCO Impact 75 polymer for injection molding.

- 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

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 mpact 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.

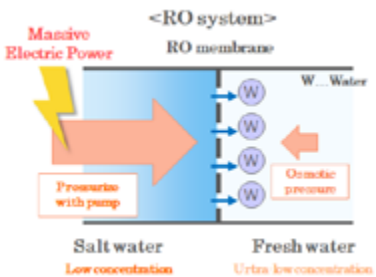
"Another great example would be our recently launched TROGAMID eCO myCX BC 100. This product is made with 100% green energy and 100% certified bio-circular feedstock, based on a mass-balance approach," says Hermes.

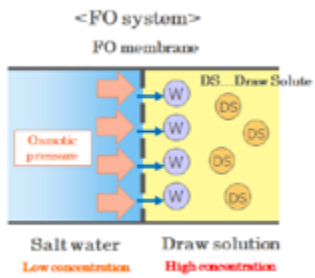
Evonik's experts will be on hand to present these and its entire range of TROGAMID® products at Booth C57, Hall 2, during the 2024 MIDO eyewear show, from February 3 to 5 in Milan, Italy. With more than 50 years of experience in developing and manufacturing specialty and high-performance plastics, Evonik's High Performance Polymers business line offers a comprehensive product portfolio with innovative solutions for virtually any industrial application.

Source : Evonik

Nippon Shokubai's Newly Developed Material Contributed the Successful Demonstration of Groundbreaking Renewable Seawater Desalination Plant in Hawaii

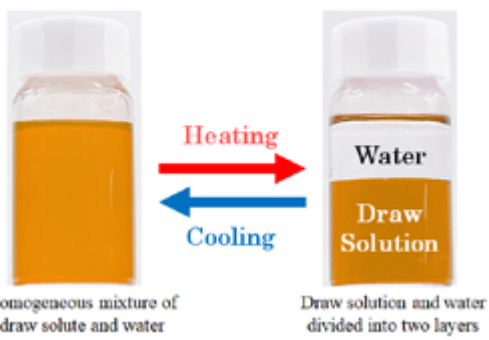
NIPPON SHOKUBAI CO., LTD. (Headquarters: Osaka, Japan, President: Kazuhiro Noda, hereinafter "Nippon Shokubai") combined forces with Trevi Systems Inc. (Headquarters: California, USA, CEO: John Webley, hereinafter "Trevi Systems" *1) in the development of the draw solution as a key component in the forward osmosis (hereinafter "FO") system, which is a next generation system for seawater desalination and water treatment. With $4 million grant from US Department of Energy, Trevi Systems commenced a large scale project to demonstrate the production of fresh water at a volume of 500 m3 per day from seawater using the jointly developed draw solution on the islands of Hawaii in June, 2022 (Photo 1, *2) and completed the data collection in September, 2023.



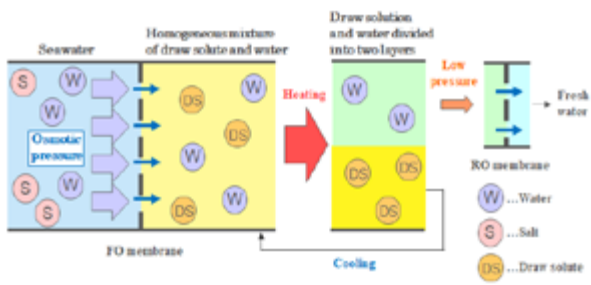


In recent years, water shortage has become a serious problem in the world, and reverse osmosis (hereinafter "RO") is widely used in the seawater desalination for agricultural and drinking water use and for treatment of industrial water. The RO system is a technology that involves the pressurization of seawater or wastewater over an RO membrane to remove salts (such as NaCl) and impurities. While this system enables the acquisition of high quality water, the large amount of electric power consumed by the pressurizing pump is considered an issue (Figure 1).

Meanwhile, the FO system is focused on as a means that will resolve this issue. The FO system utilizes the osmosis, which is a natural process and occurs when liquids of differing solute concentrations are separated by a semi-permeable membrane and water moves by the process of osmosis from the solution of lower concentration to that of higher concentration. In the seawater desalination, the FO system utilizes the difference in solute concentration in seawater and draw solution, and the natural osmotic pressure as a result of the draw solution on one side of a FO membrane (a semi-permeable membrane) to pull / transport fresh water from seawater into the draw solution with everything taking place under low pressure and energy conditions (Figure 1). Nippon Shokubai and Trevi Systems developed the draw solution to be separated from the recovered water using low grade thermal heat (Photo 2).



Trevi Systems is a company in the United States which was founded in 2010. Key elements of Trevi Systems' FO system are the use of retrograde thermolytic solute draw solution and recycling of the draw solute back to the FO membrane (Figure 2). Trevi Systems conducted a pilot test to demonstrate the production of fresh water at a volume of 50 m3 per day from seawater in Middle East (the UAE) in 2016, which confirmed that the use of the FO system was able to reduce electric power consumption to about 1/3 compared to that of the RO system.



However, the improvement in the amount of water production is necessary for the widespread utilization of the FO system at full scale, and the improvement in the function of the draw solution as the key component is crucial for realizing this. Nippon Shokubai and Trevi Systems have successfully developed a draw solution with the capability of improving water production by 30% compared with the previous product. This developed draw solution was used in the demonstration pilot plant (500m3/day) operated by Trevi Systems on the islands of Hawaii (*2) .

Key achievements of the project include:

- The fresh water recovery ratio from sea water exceeded 65% surpassing commercial RO systems' capabilities.
- Electrical energy consumption is 1/3 compared with RO systems.
- Competitive Capital Costs : Demonstrated capital costs competitive with existing RO desalination systems.

Trevi Systems is committed to further expanding the NELHA plant's capabilities, with plans to increase capacity to over 6,000m3/day at the same site, and showcasing the potential for zero liquid discharge (*3) by the use of brine and brine concentration for mineral recovery.

The FO system is under consideration to be introduced for seawater desalination in areas with high demand for water, such as the Middle East, as well as for brine concentration to achieve zero liquid discharge. Nippon Shokubai will make further efforts to improve the performance and functions of the draw solution with a view toward future expansion of the FO system.

Source : Nippon Shokubai

Kemira Accelerates the Switch to Renewable Solutions by Launching Biomass Balanced Wet Strength Resins for the Paper Industry

Kemira accelerates the switch to renewable solutions by launching biomass balanced wet strength resins for the paper industry

Kemira, a global leader in sustainable chemical solutions for water intensive industries, expands its renewable products portfolio by launching two new ISCC PLUS certified biomass balanced polymers for the papermaking industry, wet strength resins and polyamines. The wet strength resins are the market's first ISCC-certified PAE-based chemistries (polyamideamine epichlorohydrin), derived from renewable feedstocks.

Biomass balanced products are a genuine drop-in solution with immediate sustainability benefits: they provide a technically equivalent alternative for the conventional fossil-based products, and don't require changes to the customers' processes nor to Kemira's own production process.

"This is a concrete step forward in our strategy to build the leading renewable solutions portfolio to support sustainability transformation and transition to a more circular economy. With the biomass balance approach, we can immediately and effectively reduce the use of fossil-based raw materials. For our customers, these products provide a way to take climate action and contribute to the shift away from fossil carbon, advancing their targets for renewable raw materials," says Antti Matula, Senior Vice President, Global Product Lines & Business Development, Pulp & Paper.

In 2021, Kemira became the first in the world to start full-scale production of biomass balanced polyacrylamide, a polymer used in various industries, such as municipal and industrial wastewater treatment, papermaking, and mining. The now-launched biomass balanced wet strength resins and polyamines are produced at Kemira's manufacturing site in Estella, Spain, where Kemira is set to phase out the production of conventional fossil-based wet strength resins and polyamines.

All of Kemira's polymer manufacturing sites in Europe are now certified by ISCC. Kemira also plans to certify more sites during 2024, building capabilities to produce a range of other products according to the biomass balance principle. ISCC is a widely acknowledged global sustainability certification system.

In the biomass balance approach, fossil-based raw materials such as oil and gas are replaced by renewable resources at the beginning of the production value chain. A corresponding amount of renewable raw materials is attributed to the products sold as biomass balanced. Kemira's biomass balanced products contain at minimum 50% renewable carbon, through either partial or full mass balance attribution. By increasing the amount of renewable raw materials in the production system, the biomass balance approach helps reduce fossil carbon throughout the supply chain.

Source : Kemira Accelerates

WACKER Presents Innovative Solutions in Construction and Coatings at PAINTINDIA

Munich / Mumbai, Feb 14, 2024 At this year's PAINTINDIA, WACKER will be presenting two dispersible polymer powders for formulating tile adhesives that will soon be introduced into the growing Indian market. When added to dry-mix mortars, VINNAPAS® 4419 E and VINNAPAS® 8819 E produce an exceptionally creamy consistency which makes the resulting product easier to use. WACKER will also be presenting a binder specifically designed to meet the requirements of barrier coatings for paper: PRIMIS® SAF 9600. And, finally, in PRIMIS® SAF 9800, the company will be showcasing a high-performance additive used as a binder to increase the stain and water resistance of interior paints and wood coatings. The PAINTINDIA International Exhibition & Conference will be held in Mumbai, India, from February 22 to 24.

"India is one of the largest construction markets in Asia. With our dispersible polymer powders, we mainly cater to the growing demand and needs of the construction industry. Skim coats as well as tile adhesives are top-sellers, just to name two examples. We are continuously working on enhancing our products and providing technical expertise and customer service along the value chain. At PAINTINDIA, we will be presenting a range of new products for the Indian market", says Anand Gopaladesikan, responsible for WACKER's polymers business in India.

Dispersible Polymer Powders for Formulating Tile Adhesives: VINNAPAS® 4419 E and VINNAPAS® 8819 E

The dispersible polymer powders are geared primarily towards improved workability and were developed specifically with users in mind, i.e., tilers and other skilled workers. For them, proper mortar consistency is key, when both mixing the dry-mix mortar with water and then applying the fresh mortar. The creamier and smoother a tile adhesive is, the less physical effort required to apply it and the more pleasant it is for users to handle.

The new VINNAPAS® 4419 E and VINNAPAS® 8819 E polymeric binders have been modified in such a way that the viscosity of fresh mortar is lowered by up to 20 percent. As a result, less physical effort is required for preparing the mortar and applying it with a notched trowel. Realistic assessments carried out on test walls have demonstrated that this makes using it much easier.

The VINNAPAS® products also improve open time and correction time – in other words, the period in which the tiler can still adjust a tile's position before the adhesive sets and hardens. This improvement is particularly noticeable in warmer regions with more sunlight, where tilers will now have more time to prepare fresh mortar, even at high ambient temperatures.

Tilers are not the only ones who stand to gain from the polymeric binders – the producers of tile adhesives will benefit as well. The favorable processing properties of these types of mortars mean that, in some cases, producers will need far fewer additives or even be able to dispense with them entirely.

VINNAPAS® 4419 E and VINNAPAS® 8819 E were developed for tile adhesive formulations. In addition to making mortar easier to use, these binders also boost the non-sag properties of the mortar bed. Tilers can shift, adjust and ultimately fix tiles into place without major physical effort. At the same time, the new dispersible polymer powders optimize the degree of wetting on the back of the tile – an especially important feature for working with porcelain tiles or large slabs and for creating a secure, permanent bond between these materials and the substrate. VINNAPAS® 8819 E was developed specifically with the most demanding applications in mind.

Innovative Coatings: PRIMIS® SAF 9600 and PRIMIS® SAF 9800

At this year's PAINTINDIA, WACKER is unveiling PRIMIS® SAF 9600 and PRIMIS® SAF 9800, two innovative products. In PRIMIS® SAF 9600, WACKER is introducing a binder specifically designed to meet the requirements of barrier coatings for paper. Paper and paperboard treated with coatings suitably formulated with PRIMIS® SAF 9600 are heat sealable, water repellent, possess antiblocking properties and have good oil and grease resistance. PRIMIS® SAF 9600 is free of polyethylene (PE) and

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.

CPHI CHINA - VIRTUAL CPHI

Date: June 19-21, 2024
City: Shanghai New International Expo Center
Country: China
Website: https://www.cphi.com/china/en/home.html

Description: This year's event saw the return of international attendees for the first-time post covid and was a huge success as we hosted thousands of pharma professionals from across the entire pharma supply chain in Shanghai. Excited for the next edition?

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.

fluorocarbons. This water-based dispersion is readily compatible with various systems and can be formulated with waxes and other additives, as needed. PRIMIS® SAF 9600 does not interfere with the recycling of paper and paperboard, as high fiber recovery rates are possible.

Turning to the paints and coatings sector, PRIMIS® SAF 9800 can serve as a binder for high-performance paints for interior and exterior walls, as well as ready-to-use dispersion-based plasters. It increases the stain and water resistance of interior paints and wood coatings and is readily compatible with a broad range of commercial binders.

WACKER Live Demonstrations at PAINTINDIA 2024

WACKER will give live demonstrations of applications ranging from skim coat / wall putty to cementitious tile adhesives and waterproofing membranes. Experts will be on hand every day at the WACKER booth (Hall 1, Booth D 12) from 11.30 a.m. to 12:00 a.m. and 3.30 p.m. to 4.00 p.m. IST to demonstrate the compelling benefits of WACKER products in tile adhesives, and skim-coat and one-component waterproofing applications.

Source : Wacker

PCG and Sarawak Petchem to Collaborate in Exploring the Potential Development of a Low-Carbon Ammonia and Urea Plant in Bintulu, Sarawak

Kuala Lumpur, 21 February 2024 – PETRONAS Chemicals Group Berhad (PCG) signed a Memorandum of Understanding (MoU) with Sarawak Petchem Sdn. Bhd. (Sarawak Petchem) to conduct a joint feasibility study to develop a Low-Carbon ammonia and urea plant in Bintulu, Sarawak. Under the terms of the MoU, the two companies will conduct a joint comprehensive study on the technical and commercial aspects, among other considerations, in meeting the rising demands for cleaner energy solutions by tapping into the renewable energy potential within the region.

The MoU was signed by Sarawak Petchem's Managing Director / Chief Executive Officer (MD/CEO) YBhg. Dato' Mohammad Haji Ibrahim and Head of Finance & Commercial Abdul Razak Ali, while PCG was represented by its MD/CEO Mazuin Ismail and Head of Strategic Planning & Ventures, Ir. Yaacob Salim. The event was witnessed by the The Right Honourable Premier of Sarawak, Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari Tun Datuk Abang Haji Openg; Sarawak Petchem Chairman, YBhg. Tan Sri Datuk Amar (Dr) Haji Abdul Aziz bin Dato Haji Husain; PETRONAS Chairman, YBhg. Tan Sri Dato' Seri Mohd Bakke Salleh; as well as the PETRONAS President and Group CEO Tan Sri Tengku Muhammad Taufik.

"The collaboration to jointly study the potential development of a world-scale Low-Carbon Ammonia and Urea plant is very much welcomed. This plant will have a future capability to produce ammonia with a very low carbon footprint; it is indeed a strategic initiative to capitalise on opportunities within the global energy transition market," said The Right Honourable Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari.

YBhg. Tan Sri Datuk Amar (Dr) Haji Abdul Aziz further added, "This collaboration allows us to capitalise on synergies, optimise costs, and share the risks, thereby maximising value for Sarawak and Malaysia. This further exemplifies our prudent business practices and collaborative mindset. This joint development initiative serves as a catalyst for economic development in Sarawak, driving job creation and fostering sustainable growth in line with the objectives outlined in the Sarawak Post COVID-19 Development Strategy 2030 (PCDS 2030)."

"We welcome this opportunity to work with Sarawak Petchem, as it will further strengthen our working relationship with the State of Sarawak. This is potentially PCG's first low-Carbon project and underlines our commitment to drive the sustainable transformation within our value chain. This collaboration with Sarawak Petchem not only aligns with PCG's and the nation's sustainability objectives, but also facilitates our further expansion into the Southeast Asian urea market. Additionally, it presents an opportunity to leverage Sarawak's renewable energy resources while complementing our efforts in developing Carbon Capture and Storage (CCS) facilities," said Mazuin.

Low-Carbon Ammonia is predominantly utilised in the hydrogen and power sectors for co-firing, bunkering and future sustainable Ammonia applications while Urea serves primarily as a fertiliser, a raw material for resins in plywood and adhesives, as well as diesel exhaust fluid for automotive applications.

Source : petronas chemicals group

Synthetic Rubber Elastic Wonders

Introduction : In the clandestine world of industrial innovation, where chemical concoctions and scientific breakthroughs, hold the keys to economic supremacy, few advancements have wielded as much influence as the advent of synthetic rubber.

With the tumultuous onset of World War II, the world found itself teetering on the precipice of a cataclysmic conflict. Amidst the chaos and devastation, the world was driven towards innovation. A dire shortage of natural rubber, a vital resource for military machinery ensued. Synthetic Rubber first formulated in Russia, and then refined in Germany in the early 1900s, became a crucial solution. Through relentless experimentation and ingenuity, Rubber Manufacturing factories arose, albeit becoming targets of bomb attacks. Significant progress has been made after the war in this domain, especially in serving emerging technologies.

Types of Synthetic Rubber : Synthetic Rubber is an artificial elastomer. Removal of the stretching force, makes them return to their original shape and size. These are polymers made from petrochemical feedstock, with crude oil being the principal raw material. Notable among them are SBR (Styrene Butadiene Rubber), Polychloroprene (Neoprene), Nitrile Rubber (NBR), Silicone Rubber (SiR), etc. Each one of them has distinct characteristics making them suitable for diverse applications. Various chemicals are employed in making the different varieties

Manufacture : Synthetic rubber mimics the properties of natural rubber. It is a polymer made through chemical synthesis. Manipulating the chemical composition and the manufacturing process yields products with varying properties. The manufacturing process begins with the selection of appropriate monomers, such as Styrene, Butadiene, Isoprene, Chloroprene, and Ethylene. The selected monomers then undergo polymerization, where they start to bond together forming long chains. At some point, these are terminated using terminating agents, when the required chain length has been achieved. The synthetic rubber thus obtained may undergo further processing to achieve specific properties. This could include blending with other polymers or additives, vulcanization, etc. A pivotal stage in this manufacture employs a Banburry mixer, whose photograph is shown above. Used after the polymerization process, fillers, curing agents, accelerators, antioxidants, plasticizers, reinforcing agents, etc are added to the unprocessed rubber. The mixer works to uniformly distribute these additives throughout the rubber matrix, while also facilitating the blending process to ensure a homogeneous mixture. Its distinctive design features two counter-rotating blades in a chamber with an additional set of intermeshing blades. The intense mechanical action kneads and shears the rubber mixture. High torque is required during the entire process. Banburry mixers also facilitate precise control of temperature and shear rates which are critical process parameters. Quality checks are conducted on the end product for factors such as tensile strength, chemical resistance, viscosity,molecular weight, etc. Thereafter it is packed and distributed. Synthetic Rubber manufacturing is a complex chemical process, involving careful selection of monomers, precise control of reaction conditions, and testing at each stage to ensure product quality.

Applications : The important types of Synthetic Rubber have been described in the above paragraph. We here list the unique properties and Applications of Synthetic Rubber

SBR (Styrene - Butadiene Rubber) - Exhibits excellent tensile strength and good abrasion resistance. It is also oxygen, ozone, and sunlight resistant. Finds use in automobile and bicycle tires, footwear, conveyor belts, hoses, etc.

Polychloroprene (Neoprene) rubber - Known for its resistance to flame, heat, and oil, it can be used over a wide range of temperatures. It is also resistant to degradation from ozone and oxygen. Applications include wet suits, diving gear, electrical insulation, automotive fan belts, etc

Nitrile Rubber (NBR) - With good resistance to abrasion and tearing, it offers moderate resistance to heat and weathering. However, it offers excellent resistance to oil, fuel, and grease. These properties make them ideal for use in seals for hydraulic and pneumatic systems, gaskets and O rings, conveyor belts, hoses, and oil handling systems. Img source; Courtesy : Farrel Pomini - Banburry Mixer

Silicone Rubber (SiR)- boasts good resistance to extreme temperatures, UV(ultraviolet) light, and ozone along with excellent electrical insulation and physiological inertness. Finds usage in medical devices and implants, ultra flexible high voltage cables, Kitchenware, and Industrial sealants.

Natural rubber is still used in the tread, side walls, and beads of automotive tires. Due to its superior grip and resilience properties, it provides better riding comfort. Much of the natural rubber produced is used in tire manufacturing. Synthetic rubber and other additives are also blended with natural rubber to en-

Booking price as on 13/03/2024		
Current Exchange rate-$1= 82.75 INR		
Chemicals	**Current Prices**	**Location**
Acetic Acid	439	CFR India
Acrylonitrile	1390	CFR India
Benzene	1030	CFR India
Phenol	1030	CFR India
Acetone	1030	CFR India
Butyl Acrylate Monomer	1590	CFR India
C9	1000	CFR India
LAB	1570	CFR India
IPA	1520	CFR India
Methanol	295	CFR India
VAM	1015	CFR South Asia
Toluene	985	CFR India
Styrene Monomer	1200	CFR India
N-Butanol	1160	CFR India
Octanol	1870	CFR India
Isobutanol	1250	CFR India
MEG	610	CFR India
Mix Xylene-Solvent Grade	960	CFR India
Gycerine	700	CIF India
DMF	950	CFR India
Acrylic Acid	1050	CIF India
Formic Acid	550	CFR India
Adipic Acid	1350	CIF India
Ethylene	1005	CFR India
PTA	800	CFR India
Propylene	865	CFR India
THF	NA	CIF India
Note- All above booking prices have been directly collected from intenders and importers and verified.		

Mumbai Market Price as on 12/03/2024				
Name of Chemical	**Packing type**	**Units**	**Current Price**	**Exclusive of**
Acetic Acid	Imported Repack	Rs/Kg	47	GST
	Domestic Intact	Rs/Kg	58	GST
	Domestic Repack	Rs/Kg	47	GST
Dioctyl Phthalate	Imported Intact	Rs/Kg	NA	GST
	Domestic Intact	Rs/Kg	158	GST

Acetone	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	100	GST
	Domestic Intact	Rs/Kg	120	GST
	Domestic Repack	Rs/Kg	102	GST
Acetonitrile	Imported Intact	Rs/Kg	155	GST
	Domestic Intact	Rs/Kg	180	GST
	Domestic Repack	Rs/Kg	135	GST
Acrylonitrile	Imported Intact	Rs/Kg	155	GST
	Imported Repack	Rs/kg	142	GST
Aniline	Imported Intact	Rs/Kg	175	GST
	Imported Repack	Rs/Kg	170	GST
	Domestic Intact	Rs/Kg	177	GST
	Domestic Repack	Rs/Kg	NA	GST
Benzene	Domestic Repack	Rs/Litre	97	GST
Cyclohexane	Imported Intact	Rs/Kg	148	GST
	Imported Repack	Rs/Kg	113	GST
	Domestic Intact	Rs/Kg	123	GST
	Domestic Repack	Rs/Kg	115	GST
Cyclohexanone	Imported Intact	Rs/Kg	142	GST
	Imported Repack	Rs/Kg	134	GST
	Domestic Intact	Rs/Kg	150	GST
	Domestic Repack	Rs/Kg	138	GST
C9 Solvent (99.99% purity)	Imported Repack	Rs/Kg	112	GST
C9 Solvent (Arham Petrochem)	Imported Repack	Rs/Kg	111.75	GST
Dibutyl Phthalate	Domestic Intact	Rs/Kg	133	GST
Ethyl Acetate	Domestic Intact	Rs/Kg	84	GST
	Domestic Repack	Rs/Kg	80	GST
Formaldehyde(37%)	Domestic Intact	Rs/Kg	NA	GST
	Domestic Repack	Rs/Kg	18	GST
Methanol	Imported Repack	Rs/Litre	34	GST
Methyl Ethyl Ketone	Imported Intact	Rs/Kg	123	GST
	Imported Repack	Rs/Kg	112	GST
Methyl Isobutyl Ketone	Imported Intact	Rs/Kg	151	GST
	Imported Repack	Rs/Kg	142	GST
	Domestic Repack	Rs/Kg	NA	GST
Methyl Methacrylate	Imported Intact	Rs/Kg	175	GST
	Imported Repack	Rs/Kg	NA	GST
Mixed Xylene	Imported Repack	Rs/Kg	93	GST
	Domestic Repack	Rs/Kg	93	GST
Phthalic Anhydride	Imported Intact	Rs/Kg	97	GST
	Domestic Intact	Rs/Kg	97	GST

Monoethylene Glycol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	58	GST
	Domestic Intact	Rs/Kg	63	GST
	Domestic Repack	Rs/Kg	58	GST
Iso propyl Alcohol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	142	GST
	Domestic Intact	Rs/Kg	155	GST
	Domestic Repack	Rs/Kg	142	GST
nButanol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	109	GST
	Domestic Intact	Rs/Kg	116	GST
	Domestic Repack	Rs/Kg	109	GST
Ortho Xylene	Imported Repack	Rs/Kg	102	GST
Phenol	Imported Intact	Rs/Kg	NA	GST
	Imported Repack	Rs/Kg	102	GST
	Domestic Intact	Rs/Kg	108	GST
	Domestic Repack	Rs/Kg	102	GST
Purified Terethaic Acid	Domestic Intact	Rs/Kg	NA	GST
Styrene Monomer	Imported Repack	Rs/Kg	109	GST
Toluene	Imported Repack	Rs/Kg	90	GST
	Domestic Repack	Rs/Kg	90	GST
Vinyl Acetate Monomer	Imported Repack	Rs/Kg	88	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 12/03/2024

Products	Regions	Current prices
Feedstock Prices $/unit		
Crude Oil ($/barrel)	WTI CRUDE	78.15
	BRENT CRUDE	82.51
	MARS US	78.07
	OPEC BASKET	83.08
Natural Gas	New York	1.74
Gasoline	RBOB	2.58
Heating Oil	US	2.65
Ethanol	US	1.57
Naphtha ($/mt)	FOB Singapore	NA
	European	690
	CFR Far East Asia	719
Propane	New York	0.79

Aromatics prices $/MT		
Benzene	FOB Korea	1025
	CFR Japan	1040
Styrene	CFR Japan	1150
	CFR South East Asia	1180
	CFR China	1155
	FOB Korea	1140
Toluene	CFR China	890
	CFR South East Asia	955
	FOB Korea	875
	CFR Japan	890
Iso-mix xylene	CFR South East Asia	915
	CFR Taiwan	940
	FOB Korea	920
MEG	CFR China	535
	CFR South East Asia	545
Methanol	CFR China	302
	CFR Korea	344
	CFR South East Asia	345
	CFR Taiwan	339
Solvent-MX	CFR South East Asia	940
	FOB Korea	850
	CFR China	870
Ortho xylene	CFR South East Asia	1040
	FOB Korea	1080
	CFR China	1030
Para xylene	CFR South East Asia	1000
	FOB Korea	970
	CFR Taiwan	1005
Propylene	FOB Japan	820
	FOB Korea	810
	CFR China	855
	CFR South East Asia	865
Propylene Glycol	FOB Korea	895
	CFR China	920
	CFR South East Asia	925
	CFR Taiwan	920
Ethylene	CFR North East Asia	925
	CFR South East Asia	1005
	FOB Japan	890
	FOB Korea	895

Ethylene Di Chloride (EDC)	CFR Far East Asia	355
	CFR South East Asia	365
Butadiene	CFR China	1355
	CFR South East Asia	1315
	FOB Korea	1355
FOB Rotterdam USD/MT	Benzene	1300
	Methanol	314
	Ortho xylene	1445
	Para xylene	1145
	Xylene solvent	1045
	Styrene	1525
	Toluene	1115
USA Aromatics prices FOB US Gulf	Benzene C/G	406
	Toluene C/G	367
	Styrene C/LB	63
	Para xylene $/MT	1060
	Mix xylene C/G	386
	Methanol C/G	104
Intermediates prices $/MT		
Acrylonitrile	CFR Far East Asia	1255
	CFR South East Asia	1255
	CFR South Asia	1330
VCM	CFR Far East Asia	605
	CFR South East Asia	670
MTBE	FOB Singapore	905
	FOB US Gulf	1082
Phenol	CFR China	910
	CFR South East Asia	1010
	FOB US Gulf	1100
	FOB Rotterdam	1470
Acetone	CFR China	870
	CFR South East Asia	1005
	CFR Far East Asia	685
	FOB US Gulf	1433
	FOB Rotterdam	1304
Caprolactum	CFR Far East Asia	1750
	CFR South East Asia	1750
Caustic Soda	FOB North East Asia	335
	CFR South East Asia	400
PTA	CFR Far East Asia	740
	CFR South East Asia	750

Ethyl acetate	FOB US Gulf	1631
	FOB Rotterdam	1271
	FD North West Europe(Euro/ mt)	1270
Butyl acetate	FOB US Gulf	2180
	FOB Rotterdam	1739
	FD North West Europe(Euro/ mt)	1700
MEK	FOB Rotterdam	1771
	FD North West Europe(Euro/ mt)	1730
IPA	FOB US Gulf	1331
	FOB Rotterdam	1467
	FD North West Europe(Euro/ mt)	1450
NBA	CFR China	1090
	CFR South East Asia	1090
	CFR Far East Asia	1080
Octanol	CFR China	1545
	CFR South East Asia	1465
	CFR Far East Asia	1390
DOP	CFR China	1520
	CFR South East Asia	1560
	CFR Far East Asia	1375
Phthalic anhydride	CFR China	995
	CFR South East Asia	1020
	CFR Far East Asia	945
Acetic Acid	CFR Far East Asia	470
	CFR South East Asia	475
	CFR South Asia	439
	FOB China	359
VAM	CFR China	920
	CFR South East Asia	960
	CFR South Asia	1005
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.

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
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.			

All of the above prices are provided by chemicalsupdates.com.
If you wish to subscribe to the pricing module,
please send us an email at info@chemicalmarket.net
or call us on +91-877-9830-330

Opening Ports Price (Rs/kg) of Chemicals as on 12/03/2024

USD Exchange Rate: 82.75 INR

Alphabets	Chemicals Name	Current Prices (INR/kg)	Prices in USD/mt Equivalent to INR/kg	Location
A	Acetic Acid	39	471.30	Ex-Mumbai
	Acetic Acid	39	471.30	Ex-Kandla
	Acetonitrile-imported intact	155	1873.11	Bhiwandi
	Acetone	91.5	1105.74	Ex-Mumbai
	Acrylic Acid	87	1051.36	Ex-Mumbai
	Acrylonitrile	115	1389.73	Ex- Kandla
	Adipic Acid	125	1510.57	Ex-Bhiwandi
	Aniline Oil	154	1861.03	Ex-Kandla
B	Benzene	87	1051.36	Ex-Vizaz
	Butyl Acetate	97	1172.21	Ex-Kandla
	Butyl Acrylate Monomer	129	1558.91	Ex-Kandla
	Butyl Glycol	135	1631.42	Ex-Kandla
S	Sodium Nitrate (50Kg Bag)	61	737.16	Ex-Make-Lasons
	Soda ash light	34	410.88	Ex-Bhiwandi
	Styrene Monomer	98.5	1190.33	Ex-Kandla
	Styrene Monomer	100	1208.46	Ex-Mumbai
	Sulphuric Acid	4	48.34	Ex-Vapi

C	C10	85	1027.19	Ex-Kandla
	C9	84-86	Not Available	Ex-Kandla
	Carbon Black-regular grade	60	725.08	Mumbai
	Caustic Soda Lye	31.5	380.66	Ex-Dahej
	Chloroform	11	132.93	Ex-Dahej
	Citric Acid-ANHYD	70	845.92	Ex-Bhiwandi
	Citric Acid-Mono	62	749.24	Ex-Bhiwandi
	Cyclohexane	106	1280.97	Ex-Hazira
	Cyclohexanone	116	1401.81	Ex-Kandla
D	DMF Drum	72	870.09	Ex-Bhiwandi
	DEG	61.5	743.20	Ex-Kandla
E	EDC	30.5	368.58	Ex-Kandla
	Epoxy Resin	173	2090.63	Ex-Nhava Sheva
	Ethyl Acrylate	136	1643.50	Ex-port
F	Formic Acid	65	785.50	Ex-Bhiwandi
G	Glycerine	56	676.74	CIF Nhava Sheva
H	N-Heptane	165	1993.96	Ex-Bhiwandi
	Hexane	92	1111.78	Ex-Kandla
	Hydrogen Peroxide-50%	34	410.88	Ex-Bhiwandi
I	Isobutanol	104	1256.80	Ex-Kandla
	IsoPropyl Alcohol	128	1546.83	Ex-Kandla
	IsoPropyl Alcohol	128	1546.83	Ex-Mumbai
L	LAB	130-132	Not Available	Imported
M	Maleic Anhydride-Drum	90	1087.61	Ex-Mumbai
	MDC	29	350.45	Ex-Dahej
	MEG	51	616.31	Ex-Mumbai
	MEK	101	1220.54	Ex-Kandla
	Melamine	91	1099.70	Imported
	Methanol	24.5	296.07	Ex-Kandla
	Methanol	25.75	311.18	Ex-Mumbai
	MIBK	130	1571.00	Ex-Hazira
	Mix Xylene-Solvent Grade	81	978.85	Ex-Kandla
	Mix Xylene-Solvent Grade	83	1003.02	Ex-Mumbai
	MMA	169	2042.30	Ex-Hazira
N	N-Butanol	96	1160.12	Ex-Kandla
	N-Propanol	88	1063.44	Ex-Kandla
O	Octanol	155	1873.11	Ex-Kandla
	Ortho Cresol	160	1933.53	Ex-Bhilai
	Ortho Xylene	(96 Mumbai)	Not Available	Ex-Kandla
V	VAM	79	954.68	Ex-Kandla
	VAM	80	966.77	Ex-Hazira

P	Phenol	88	1063.44	Ex-Kandla
	Phenolic Resin	148	1788.52	Ex-Indore
	Phthalic Anhydride	98	1184.29	Ex-Mumbai
	Propylene Glycol	108	1305.14	Ex-Kandla
T	Tio2(Anatase Grade)	190	2296.07	Ex-Bhiwandi
	Tio2(Rutile Grade)	225	2719.03	Ex-Bhiwandi
	Toluene	79	954.68	Ex-Kandla
	Toluene	81	978.85	Ex-Mumbai

Producer Prices (Rs/kg) of Chemicals as on 12/03/2024

Producers	Chemicals Name	Current Price(Rs/kg)	Import parity price in USD/MT	Production capacity	Location
Reliance	Toluene	82.5	996.98	100,000 tonnes/year	Jamnagar
	Mix Xylene	86	1039.27	120,000 tonnes/year	Jamnagar
	MEG	57	688.82	750,000 tonnes/year	Jamnagar
	DEG	59.5	719.03	65,000 tonnes/year	Jamnagar
	TEG	117.5	1419.94	NA	Jamnagar
	LAB	140	1691.84	180,000 tonnes/year	120ktpa Patalganga, 60ktpa Vadodra
	PTA	85.2	1029.61	1,300,000 tonnes/year	Dahej
IOCL	LAB	138	1667.67	120,000 tonnes/year	Koyali, Gujarat
	MEG	52.6	635.65		Ex-Odisha(Paradip)
	MEG	54.2	654.98		Ex-Panipat
	DEG	56.7	685.20		Ex-Odisha(Paradip)
	DEG	58.2	703.32		Ex-Panipat
	Banzene	NA	Not Available		Vadodara, Gujarat
	Paraffin Wax	110	1329.31		
HOCL	**Phenol**	**108**	**1305.14**	**40,000 tonnes/year**	**Kochi**
	Acetone	**99**	**1196.37**	**24640 tonnes/year**	**Kochi**

Deepak Phenolics	Phenol	88	1063.44	200,000 tonnes/ year	Dahej
	Acetone	90.5	1093.66	80.5	Dahej
	IPA	129	1558.91	30,000 tonnes/ year	Dahej
Arham Petrochem Pvt Ltd (Kandla Energy & Chemicals Ltd Refinery)	C9	83.75-85.75	Not Available	69,000 tonnes / year	Kandla
	C9	84.75-86.75	Not Available	69,000 tonnes / year	Ahmedabad
	C10	84.5	1021.15	30,000 tonnes / year	Kandla
	C10	84	1015.11	30,000 tonnes / year	Ahmedabad
	C10 - Imported Re-pack	97.75	1181.27	30,000 tonnes / year	Bhiwandi Warehouse
	MTO/White Spirit(kl)	59.65	720.85	75000 tonnes / Year	Kandla
	MTO/White Spirit(kl)	60.65	732.93	35,000 tonnes / year	Ahmedabad
	De-Aromatised D40	130	1571.00	75000 tonnes / Year	Kandla
	De-Aromatised D40	131	1583.08	35,000 tonnes / year	Ahmedabad
	De-Aromatised D60	139	1679.76	75000 tonnes / Year	Kandla
	De-Aromatised D60	140	1691.84	35,000 tonnes / year	Ahmedabad
SI GROUP	**Phthalic Anhydride**	**96**	**1160.12**	**11000 tonnes/ year**	**Ratnagiri, Maharashtra**
Andhra Petrochemicals	**Octanol**	**150**	**1812.69**	**70,000 tonnes/ year**	**Vishakhapatnam**
	N-Butanol	**96**	**1160.12**	**30,000 tonnes/ year**	**Vishakhapatnam**
	Iso-Butanol	**98**	**1184.29**	**4000 tonnes/ year**	**Vishakhapatnam**
BASF	**Adipic Acid**	**140**	**1691.84**	**210,000 tonnes/ year**	**Germany**
NIRMA	**LAB**	**135**	**1631.42**	**120,000 tonnes/ year**	**Vadodra**
TATA Chemicals	**Soda Ash light**	**35**	**422.96**	**900,000 tonnes/ year**	**Mithapur**
GACL	Soda Ash light	NA	Not Available		
GSFC	Cyclohexane	105	1268.88	NA	Gujarat

GNFC	Acetic Acid	39	471.30	160,000 tonnes/ year	Bharuch
	TDI Drum	202	2441.09	67000 tonnes/ year	Bharuch
	Aniline Oil	153	1848.94		Bharuch
BPCL	Benzene	88.6	1070.69	90,000 tonnes/ year, Mumbai Refinery,	Mumbai Refinery
	Toluene	81	978.85	16,000 tonnes/ year	Kochi Refinery
	Hexane(kl)	95.1	1149.24	35,000 tonnes/ year, Kochi	Mumbai Refinery
	Hexane(MT)	143.2	1730.51	35,000 tonnes/ year, Kochi	Mumbai Refinery
	MTO(kl)	85.05	1027.79	19,000 tonnes/ year	Mumbai Refinery
	Paraffin Wax	110	1329.31		
	Sulphur(Molten)	9.9	119.64	19,000 tonnes/ year	Mumbai Refinery
	Acrylic Acid (B)	73.7	890.63	47000 tonnes/ year	Kochi Refinery
	Acrylic Acid (P)	82.7	999.40		Kochi Refinery
	2-Ethyl Hexanol (B)	141.5	1709.97	47000 tonnes/ year	Kochi Refinery
	2-Ethyl Hexanol (P)	152	1836.86		Kochi Refinery
	N-Butanol(B)	98.25	1187.31	38000 tonnes/ year	Kochi Refinery
	N-Butanol(B)	103.5	1250.76		Kandla Installation
	N-Butanol(P)	112.5	1359.52		Kochi Refinery
	Iso-Butanol(B)	95.25	1151.06	7000 tonnes/year	Kochi Refinery
	Iso-Butanol(P)	106.5	1287.01		Kochi Refinery
	Butyl Acrylate (B)	131.7	1591.54	180000 tonnes/ year	Kochi Refinery
	Butyl Acrylate (B)	134	1619.34		Kandla Installation
	Butyl Acrylate (P)	141.7	1712.39		Kochi Refinery
	2-Ethyl Hexyl Acrylate(B)	160.7	1941.99	10000 tonnes/ year	Kochi Refinery
	2-Ethyl Hexyl Acrylate(P)	170.7	2062.84		Kochi Refinery
MDC	Grasim	28.25	341.39	33000 tonnes/ year	Nagda, Madhya Pradesh
	Meghmani	28.25	341.39	397500 kg/ month	Ankleshwar, Gujarat
	GACL	28.5	344.41	NA	Bharuch, Gujarat

Ethyl Acetate	GNFC	70	845.92	50000 tonnes/ year	Bharuch, Gujarat
	Accord	69	833.84		
	Satyam	68.5	827.79	50 tonnes/day	Nevasa, Maha-rashtra
	Jubilant	71	858.01	280 tonnes/day	Gajraula, U.P
	Laxmi	69	833.84	100000 tonnes/ annum	Mahad, Maha-rashtra
Caustic Soda Lye	Meghmani	31	374.62	400000 tonnes/ annum	Bharuch, Gujarat
	GACL	31	374.62		
	Reliance	31	374.62	69500 tonnes/ annum	Kurnool Distric, Andhra Pradesh
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					
Note- Last changed price means when it changed last whether its yesterday or 2 days ago or 5 days ago or de-pends on last changing.					

New Chemical Products Listed on Chemical Market Leads Platform

DILUTE ACETIC ACID

CAS-Number :

Molecular Formula :- CH3COOH

Molecular Weight :-60.05 mol/g

Available Qty :- 1.0000 Tonnes

Package Size :- 50 kg, 200 kg, 5 Tons

Price :- Available on Request

Markets :- Basic Chemicals |

ISOPROPYL ALCOHOL / 2-PROPANOL / 67-63-0

CAS-Number :- 67-63-0

Molecular Formula :- $CH_3CH(OH)CH_3$

Molecular Weight :- 60.1 mol/g

Available Qty :- 50.0000 Litres

Package Size :-50 kg, 200 kg, 5 Tons

Price :- Available on Request

Markets :- Basic Chemicals |

AMMONIUM CARBONATE LUMPS / DIAMMONIUM CARBONATE / 506-87-6

CAS-Number :- 506-87-6

Molecular Formula :- (NH4)2CO3

Molecular Weight :- 96.09 mol/g

Available Qty :- 100.0000 Kgs

Package Size :- 25 kg / 50 kg / HDPE packaging bags / Drum

Price :- Available on Request

Markets :- Basic Chemicals | Food & Nutrition | Paints & Coatings | Agro Chemicals | Rubber & Resins | Textile Industry |

MELAMINE UREA FORMALDEHYDE(MUF 10 % AND 15%)

CAS-Number :-

Molecular Formula :-

Molecular Weight :- mol/g

Available Qty :- 500.0000 Tonnes

Package Size :- 20 liter HDPE gallon, 22-20 ton stainless steel tank and isotank

Price :- Available on Request

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

HCL GAS IN METHANOL/ METHANOLIC HCL / 7647-01- 0

CAS-Number :- 7647-01- 0

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 | Pharmaceuticals & API | Food & Nutrition | Paints & Coatings | Intermediates | Specialty Chemicals | Agro Chemicals | Solvents | Electroplating | Pharmaceutical Intermediates | Textile Industry | Industrial Chemicals |

hance certain specific properties such as durability, rolling resistance, and wet traction. V- belts too use natural rubber. The major physical parameters for both applications include tensile strength, shear strength, hardness, density, elongation at break, and modulus of elasticity.

Environmental Impact of Synthetic Rubber : Synthetic rubber like its natural counterpart can also be recycled. However economic viability, efficiency, and types are to be taken into consideration. The production of Synthetic rubber relies on petroleum or natural gas, with significant environmental implications. Further, energy usage during manufacture is rather high, and this has to be sourced indirectly from fossil fuels. Water consumption for the process could strain the local resources. Certain manufacturing processes release nitrogen oxides and sulfur oxides, contributing to air pollution and adverse human health effects.

Conclusion : The transition from natural to synthetic rubber prompts consideration regarding the displacement of those employed in the natural rubber trade. It should be noted that tapping natural rubber is labour-intensive. The saga of synthetic rubber is far from over. Innovation in the field of polymer chemistry continues unabated, with new requirements emerging continuously. The journey to discovery is a never-ending quest - a quest fired by human curiosity and the relentless pursuit of knowledge.

Source : Team Chemical Market

New Age Detergent Pods Stopping Plastic Waste And Scoring High On Sustainability And Performance

Detergent pods are pre-measured, easy to use and they perform well. Under-dosing is a common problem faced due to hard-to-read measuring lids. Although the cleaning ingredients are the same in both the liquid detergent and laundry pods, consumers celebrate them as they cut down the hassle of measuring liquid detergent every time, and cut down the mess as they load the washing machine. In this article, we have covered two of the latest inventions in laundry pods by some renowned specialty chemicals companies. We are excited to share their movement towards bringing sustainable products to the Indian market. Let's begin.

Current scenario of the Indian market on laundry solutions:

The Indian market has experienced notably fewer laundry solutions and the market has been largely dominated by laundry bars and powders. Specialty chemical companies are focusing on laundry products with better performance, higher washing efficiency, and promoting healthy laundry practices.

The laundry specialists understand that washing performance relies on mechanical operation, chemical action, energy output and temperature variations. Therefore the leading market players have come up with innovations, and ideas driven by environmental policies and the goal of producing pollution-free, environmentally friendly laundry solutions.

Stringent governmental norms and an increasing number of eco-conscious consumers have stimulated the demand for greener alternatives. The prevailing challenge is that the laundry detergent intermediates are derived from petroleum products, they are rich carbon contributors. Thus, several leading companies have been working on deriving laundry solutions from biodegradable ingredients such as natural washing soda, coconut oil, plant-based enzymes, mineral-based surfactants, zeolites, and so on. The trend is continuing with growing technological advancements and better access to raw materials.

The COVID-19 pandemic made a few corrections to the goal:

Detergents have very less to do with sterilization, but COVID has ushered the need to combine disinfectants with detergents that could effectively remove pathogenic microbes, yet safe or non-toxic for the user. The challenge may sound simple, but it is not so. Removing or controlling microbe population or viruses like COVID-19 is not simple, because they are not alive, they exist in their dormant stage for fairly longer periods (weeks). They wait till they come in contact with the host and then they replicate or do the damage.

Thus, the laundry solutions such as surfactants, halogens, phenolics, alkylating agents, and alcohols are preferred.

It is important to note that some disinfectants are not appropriate for home settings. Those disinfectants are used in professional settings and are not biodegradable, thus they cause health issues if used in smaller settings or home settings.

Inventions that are highly sustainable and environmentally friendly:

Galaxy Hearth mixes laundry pods – an impressive invention by Galaxy surfactants:

Galaxy Hearth mixes laundry pods

range encompasses critical elements like safety, sustainability, value enhancement, flexibility and customizability. Galaxy Hearth laundry pods are powered by Plant-based surfactants.

Plant-based surfactants- Why are they so beneficiary?

Now the big advantage of using natural or plant-based surfactants is that they are abundantly found in nature, cheaper during extraction, energy saving, bio-degradable and have minimal effect on dye and functional finish when applied on fabrics. Above all, they are extracted from renewable and sustainable sources. Also, they are easily broken down in nature when they come in contact with natural water bodies like rivers, lakes, etc. It doesn't cause alarming levels of water pollution or eutrophication.

The concoction in these ready mix laundry detergent pods is carefully designed to deliver enhanced performance, adequate wetting, excellent cleansing, and detergency of solid fabrics.

The concoction is described to deliver supreme detergency against powders, and even commercially available pods. They have scored in other areas such as aesthetically pleasing, convenient, machine-friendly, biodegradable and highly sustainable.

Galaxy Hearth also includes sustainable solutions for homecare applications like dishwashers, hard surface care, institutional and industrial cleaning, laundry solutions and other home care products. The prime goal is to enhance the performance and safety of the consumers.

These ingredients are cruelty-free, and all the products are bio-degradable and compatible with new-age formats.

Unilever launches most powerful and sustainable laundry capsules:

Unilever has converted its packaging from plastic to cardboard and the capsule membrane is fully biodegradable and dissolves more quickly than its competitive ones. On their official website, when mentioning their innovation, they have stated that the active ingredients are 65% derived from plant sources and have been optimized to deliver quality cleaning performance even in cold and short laundry cycles. The research supports that the Unilever laundry detergent pods have reduced carbon footprint by 16% when compared to other capsules available in the market and leave no residue on the laundry.

Truly, the product is an impeccable example of "Unilever's Clean Future Strategy".

Unilever has proudly committed to delivering sustainable, clean products and announced in September 2020 and has been working towards that mission. They aim to fundamentally change how the industry works in terms of cleaning and manufacturing process of laundry products. They have also backed the idea with an investment of 1 billion euros.

Take away: When a new invention enters the market, it tends to prompt questions from people. Some of the specialty chemical companies have worked immensely on formulations to bring out first-grade performance in detergency against detergent powders and bars. Alongside laundry solutions, these companies have also worked on other segments of home care products to incorporate naturally derived ingredients and practices that cause less impact on the environment and carbon footprint.

Source : Vinodini Harish

Trends Adopted by A Carboxymethyl Cellulose Manufacturer

In a time when how we make things is changing a lot, the people who make carboxymethyl cellulose (CMC) are also facing these changes. As more businesses emerge everywhere, the demand for CMC—something that can be used in many ways, like food, medicine, and even oil drilling—goes up. In this article, we will explore the important trends in this industry and the smart ways a big Carboxymethyl Cellulose manufacturer is dealing with the challenges of the market.

Innovative Technology Integration: In an age where Industry 4.0 principles promote efficiency and innovation, keeping ahead requires a strong technological foundation. The Carboxymethyl Cellulose manufacturerhas adopted cutting-edge technology, including automation and data analytics, into its manufacturing operations. Doing things better not only helps the company work well but also makes sure the products are always good, meeting the needs of many different areas. Using technologies that check things right away helps the company respond quickly when more or less people want their products. This makes customers happy faster. Doing things like this makes the company a leader, always ready for changes in the world of technology.

Diversifying Product Portfolio: The company knows it's important to be flexible in the tough business world today. Apart from making things for food and medicine, they also create products for personal care, clothes, and the always-changing world of batteries. Doing different things like this helps them not be too worried if the market changes

a lot. It also gives them new chances to make money. By keeping up with what people want now and what they might want in the future, the Carboxymethyl Cellulose manufacturerhas become a one-stop solution for lots of different industries.

Worldwide Expansion and Industry Penetration: To capitalize on the increasing demand for CMC, the firm has taken a proactive approach to worldwide expansion. Establishing a strong worldwide presence enables the organization to expand into growing areas and broaden its consumer base. The company can make things easier and faster by putting factories and storage places in the right spots. This way, they can send products to customers around the world on time. Also, the company works closely with local sellers to understand what people want in different areas. This helps them give the right solutions for all kinds of customer needs.

Improving and Trying New Things: In a world that keeps changing a lot, it's really important to be the best at trying new ideas. The Carboxymethyl Cellulose manufacturerspends a lot of money on trying new things and making their products better. This helps them be better than others and become leaders in the industry. They join meetings, work with research groups, and share ideas to know what's new. This helps them be ready for any problems that might happen in the future.

Following the Rules: In a time when people are watching closely, and there are more rules, it's really important to make sure products are good and follow the law. The CMC Factory is very careful at every step of making things. They follow rules from all over the world to make sure their products are good, making customers happy and building trust in the industry. Investing in strong quality assurance not only protects the company from potential legal and reputational problems but also presents its products as dependable and safe, increasing market attractiveness. The dedication to quality assurance indicates a long-term goal of sustained growth and customer satisfaction.

Customer-focused Approach and Customisation: In a day of increasingly diversified client preferences, taking a customer-centric strategy is critical. The CMC manufacturer understands and addresses its clients' demands. The organization builds deep and long-lasting connections with clients by constantly engaging them, soliciting input, and providing specialized solutions. The flexibility to tailor CMC formulations to individual applications enables the producer to stand out in a competitive market. This customer-centric strategy not only boosts brand loyalty but also displays the organization as a versatile and receptive partner in the eyes of its customers.

Training for Staff and Skills Development: The skills and knowledge of a company's workers are critical to its success in manufacturing. The Carboxymethyl Cellulose Factory places a high value on staff training and development programs. By investing in continual training efforts, the organization guarantees that its employees have up-to-date market knowledge and technology skills. A well-trained staff not only increases operational efficiency but also encourages an innovative culture inside the organization. Employee engagement programs promote a good work environment by fostering innovation and cooperation. As a result, the manufacturer becomes the industry's preferred employer, recruiting top personnel and maintaining key knowledge.

Open Interaction and Corporate Social Responsibility (CSR): In a period of increased openness and social awareness, the Carboxymethyl Cellulose manufacturerrecognizes the value of straightforward and transparent communication. The organization actively transparently communicates with stakeholders, offering information about its manufacturing methods, sustainability initiatives, and overall corporate strategy. The company also helps the community and takes care of the environment through projects that are the right thing to do. They connect their business with good values and being a good corporate citizen. This not only fulfills their responsibility but also makes people like their brand more. They talk openly about what they do, and their good actions help them succeed in the business for a long time.

Continuous Cost Optimization and Efficiency Enhancements: In a highly competitive market, cost efficiency is important to sustaining profitability. The company that makes CMC is always trying to save money by doing things better. They use smart ways to make their processes better, reduce waste, and improve how they get materials. They also make their machines use less energy, which helps them spend less money and be kinder to the environment. Moreover, they are not only efficient in making things but also in how they move and deliver them. Streamlining supply chain operations promotes timely delivery while lowering overhead expenses. This dedication to cost optimization enables the company to retain competitive pricing while maintaining strong profit margins, assuring long-term viability in a changing market environment.

Conclusion : The landscape of every Carboxymethyl Cellulose manufacturer is changing, and proactive adaptation to industry developments is critical for long-term success. This major CMC manufacturer's plans demonstrate its dedication to sustainability, technical advancement, diversification, worldwide expansion, and ongoing innovation. As the industry navigates the difficulties of a changing world, these tactics position the manufacturer as a robust and forward-thinking operator capable of driving the future of CMC applications across a wide range of industries.

Source : Promotional Guest Post

Azeotropy 2024 IIT Bombay S Annual Chemical Engineering Symposium Returns

Mumbai, India – Mark your calendars! The highly anticipated AZeotropy 2024, IIT Bombay's annual Chemical Engineering Symposium, returns to its 18th edition on Saturday, March 16th, 2024. Organized entirely by students, this 18-year tradition fosters a vibrant hub for students,

academia, and industry leaders to explore the cutting-edge advancements and future directions of chemical engineering.

A Legacy of Innovation and Collaboration

For nearly two decades, AZeotropy has established itself as a cornerstone event in the Asian chemical engineering landscape. Last year's successful return to a physical format solidified its reputation for fostering dynamic in-person interactions and collaborations. Over 5,000 students from more than 200 colleges across India, alongside 50+ industry leaders, participated, creating a rich exchange of knowledge and practical learning experiences.

AZeotropy 2024: A Diverse and Engaging Experience

This year's symposium promises an even more enriching experience. Participants can expect a unique blend of events, including:

- Chemvision: The Lecture Series: Renowned professors like Prof. Abraham Stroock (Cornell University), Prof Sangtae Kim (Purdue University), and Prof. Rakesh Agrawal (Purdue University) will delve into groundbreaking topics.
- Panel Discussion: Chemical Industry 4.0: Industry stalwarts like Dr. Kishor Dongaonkar (Reliance Industries Ltd) and Mr. Subhash Dhar (Deepak Nitrite Limited) will discuss the future of the field.
- Interactive Workshops: Gain hands-on experience with industry-standard software like OpenModelica, OpenFOAM, and DWSIM.
- Thrilling Competitions: Showcase your talent and problem-solving skills in competitions like Industrial Design Problem and Chem-O-Philia.

Supported by Industry Leaders

- AZeotropy 2024 is grateful for the continued support of our esteemed sponsors:

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Don't Miss Out!

AZeotropy 2024 offers an exceptional opportunity for students, aspiring engineers, and industry professionals to connect, learn, and shape the future of chemical engineering. Stay tuned for registration details, and visit our website (details to be provided) for more information.

Join us at AZeotropy 2024 and be a part of this transformative experience!

AZeotropy Website: https://www.azeotropy.org/

AZeotropy 2024 Schedule: https://tinyurl.com/AZeotropy-Schedule2024

https://www.instagram.com/iitbombay_azeotropy/?hl=en

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Source : Chemical Market