DOWNLOAD PDF MATERIALS FOR ENVIRONMENTALLY ACCEPTABLE COATINGS, INKS, AND ADHESIVES (BUSINESS OPPORTUNITY REPORT)

Chapter 1 : Avery Dennison Corporation Junior Analytical Chemist Job Opening in Painesville, OH | Liveca

High demand for these solvents in adhesives & sealants, pharmaceutical, and personal care industries is estimated to act as a major opportunity in the near future. This report analyzes and forecasts the market for green & bio-based solvents at the global and regional level.

Check Discount Report Description Pentaerythritol is an alcohol containing four hydroxyl groups obtained from the aldol condensation process of formaldehyde and acetaldehyde. Pentaerythritol is an odorless, light yellow crystalline powder soluble in water. Pentaerythritol has different derivatives such as pentaerythritol esters, pentaerythritol tetranitrate, pentaerythritol tri-acrylate and dipentaerythritol. Pentaerythritol esters are an environment friendly substitute for electrical transformer fluids as they are biodegradable and less hazardous in water. Properties such as high flash point and low volatility offer resistance to ignition and make pentaerythritol an ideal substitute for dielectric fluids used in transformers. Pentaerythritol finds application in various industries such as automobiles, construction, paints, etc. The growing automobile and construction industry, especially in developing countries is expected to lead to a significant growth for pentaerythritol. In addition, a key growth driver for pentaerythritol will be its environmentally friendly property. However, limited availability and volatile raw material prices are expected to hamper the market. This report analyzes, estimates and forecasts the global demand for pentaerythritol in terms of volume kilo tons and revenue USD million from to The report analyzes various factors driving and restraining global demand and the impact of these over the forecast period. Each of these segments have been further analyzed to assess their potential using our market attractiveness tool and market data provided for the period from to , in terms of volume kilo tons and revenue USD million. The demand for pentaerythritol has been estimated by applications and by geography North America, Europe, Asia Pacific and Rest of the World. A value chain analysis has been presented for a better understanding of the pentaerythritol supply chain right from raw material manufacturers to end users. This model also include understanding of other acting forces that include bargaining power of suppliers, bargaining power of buyers, threat from substitutes and threat from new entrants. An extensive competitive landscape includes market share and company profiles of major participants in the global market. The market players are profiled using attributes such as company overview, financial overview, business strategies, SWOT analysis and recent developments in the field of pentaerythritol. For this research, we conducted in-depth interviews and discussions with key industry participants and opinion leaders. Primary research represents bulk of the research efforts, supplemented by extensive secondary research. Secondary research also includes a search of recent trade and technical writing, Internet sources, statistical data from Government websites, trade associations and agencies. To manage the scope of the research certain assumptions were made. All the market estimates and forecast have been calculated on the basis of sales and consumption. Inflation is not a part of pricing in this report and price has been kept constant throughout the year for calculating market size. Given that different end-users use different types of products, pricing for each application varies according to region while estimating and forecasting market revenue on the global basis. The global average bulk prices of chemicals have been used for computation of value of market. The report segments the global pentaerythritol market as,.

Chapter 2 : Paint and Coatings Industry Overview - Chemical Economics Handbook (CEH) | IHS Markit

Thus, green & bio-based solvents are eco-friendly. These properties or inherent advantages makes them suitable for usage in various applications such as paints & coatings, printing inks, commercial & domestic cleaning, adhesives & sealants, pharmaceutical, and cosmetics.

Request Report Methodology A rampant need for solvents in myriad industries that involve cosmetics, printing inks, commercial and domestic cleaning, paints and coatings, pharmaceutical products, and adhesives and sealants, is primarily driving the global green and bio-based solvents market. With a rising awareness regarding the need for causing minimum harm to the environment, the demand for eco-friendly solvents is projected to increase at a rapid speed. Many companies are undertaking extensive research and product development by investing huge sums of money, consequently making the market expand impressively. This growth is projected to occur at an impressive CAGR of 7. Under product type, bio-based propylene glycol, bio-based methanol, bio-based propanol, methyl soyate, bio-based butanol, bio-based ethanol, ethyl lactate, d-limonene, and others, are key segments present in this market. This is mainly because of its high demand in numerous applications as well as high production rate through manufacturers. Coming as runners-up to this chemical are ethyl lactate and methyl soyate. However, during the next few years, the bio-based ethanol segment is envisaged to retain its dominant position as its use and production are projected to exist at a high level. In terms of growth rate, methyl soyate is expected to outpace all other types during the next few years thanks to its growing use as solvents in printing inks, paints and coatings, and cleaning applications. Apart from these types, D-limonene is also prophesized to earn a lot of revenue by witnessing rampant demand due to its use as an industrial and domestic cleaning solvent. Moreover, ethyl lactate is envisaged to carry substantial demand in the near future as this segment is emerging as a key alternative for petroleum-based solvents. From the perspective of applications, the paints and coatings segment held a winning spot in the global green and bio-based solvents market in However, the near future is predicted to make the commercial and domestic cleaning segment witness an impressive growth. Even the segment of adhesives and sealants is prophesized to draw in notable growth in future owing to expanding automobile and construction industries. Of these, North America holds a leading edge against other regions thanks to rapidly evolving industrial environment coupled with a rising demand for eco-efficient bio-based products. Elevance Renewable Sciences, Inc. Solvents are liquids with the capability to dissolve other materials without any chemical change in the solvent or the material. Based on the type or source of raw material, solvents can be classified into bio-based or petroleum-based. Petroleum-based solvents emit high amount of volatile organic compounds during their manufacturing process. This makes them environmentally unsafe. Additionally, these solvents are typically dependent on the prices of crude oil, leading to constant fluctuations in the prices of final products. The study encompasses market attractiveness analysis, wherein applications are benchmarked based on their market size, growth rate, and general attractiveness. These segments have been analyzed based on the present and future trends. The report also covers demand for individual products and applications in all the regions. Market size and forecast for products and applications have been provided in terms of global, regional, and country level markets. In order to compile the research report, we conducted in-depth interviews and discussions with a number of key industry participants and opinion leaders. Primary research represents the bulk of research efforts, supplemented by extensive secondary research. Secondary research includes a search of recent trade, technical writing, Internet sources, and statistical data from government websites, trade associations, and agencies. Key players profiled in the report include Cargill Inc. Market players have been profiled in terms of attributes such as company overview, financial overview, business strategies, and recent developments.

Chapter 3 : Market Trends & Forecast - Coatings World

Inks, the fastest growing segment with a five-year CAGR of %, is expected to grow from $ million in to nearly $ billion in The UV-cured resin market is ripe for growth. A key driver is the rising application opportunity of UV curing resins in the graphic arts, industrial coating and electronic industries.

Request Report Methodology Pentaerythritol is an alcohol containing four hydroxyl groups obtained from the aldol condensation process of formaldehyde and acetaldehyde. Pentaerythritol is an odorless, light yellow crystalline powder soluble in water. Pentaerythritol has different derivatives such as pentaerythritol esters, pentaerythritol tetranitrate, pentaerythritol tri-acrylate and dipentaerythritol. Pentaerythritol esters are an environment friendly substitute for electrical transformer fluids as they are biodegradable and less hazardous in water. Properties such as high flash point and low volatility offer resistance to ignition and make pentaerythritol an ideal substitute for dielectric fluids used in transformers. Pentaerythritol is used in many applications in the automotive industry including high grade lubricants, interiors, coatings, etc. It is also used in the synthesis of polyurethane foams, which are further used in automobile interiors. The demand from emerging economies like China and India is driving growth of the automobile industry. Population growth, increase in disposable incomes, and easy loan schemes are key drivers of the market. These key driving factors have also led to greater demand in housing and a significant growth in construction sites. A burgeoning middle class, increasing income levels, coupled with government initiatives such as tax benefits towards loans for housing, has led to a surge in growth in the construction industry globally. However, increase in demand for acetaldehyde and formaldehyde for other applications will lead to their supply shortage which is further expected to hinder pentaerythritol market. Alkyd paints dominated the market with These paints are used in the construction industry and are expected to show significant growth in Asia-Pacific, especially in developing nations such as India and China. Alkyd paints was followed by alkyd inks which have usage in coatings, automobiles and interior decoration. Plasticizers market is expected to be the fastest growing market at a CAGR of 5. Alkyd varnishes and radiation cure coatings accounted for 8. Changing lifestyles in emerging economies like China and India, is affecting the market of both the applications. Growth in the automobile industry and the need for eco-friendly lubricants to reduce ozone depletion is expected to drive the market for pentaerythritol-based lubricants. Other applications of pentaerythritol and its derivatives include medicines, pesticides, etc. Some of the more innovative applications of pentaerythritol derivatives are in the treatment of heart diseases, where it has fewer side effects than conventional drugs. Asia-Pacific dominated the global pentaerythritol market and accounted for The growing demand and production of pentaerythritol in China and India coupled with the growing construction and automobile industry is expected to push the global demand for pentaerythritol. China is a major producer as well as the largest consumer of pentaerythritol and its derivatives. The global market for pentaerythritol was highly concentrated with top four participants in the market accounting for Pentaerythritol is an alcohol containing four hydroxyl groups obtained from the aldol condensation process of formaldehyde and acetaldehyde. Pentaerythritol finds application in various industries such as automobiles, construction, paints, etc. The growing automobile and construction industry, especially in developing countries is expected to lead to a significant growth for pentaerythritol. In addition, a key growth driver for pentaerythritol will be its environmentally friendly property. However, limited availability and volatile raw material prices are expected to hamper the market. This report analyzes, estimates and forecasts the global demand for pentaerythritol in terms of volume kilo tons and revenue USD million from to The report analyzes various factors driving and restraining global demand and the impact of these over the forecast period. Each of these segments have been further analyzed to assess their potential using our market attractiveness tool and market data provided for the period from to , in terms of volume kilo tons and revenue USD million. The demand for pentaerythritol has been estimated by applications and by geography North America, Europe, Asia Pacific and Rest of the World. A value chain analysis has been presented for a better

understanding of the pentaerythritol supply chain right from raw material manufacturers to end users. This model also include understanding of other acting forces that include bargaining power of suppliers, bargaining power of buyers, threat from substitutes and threat from new entrants. An extensive competitive landscape includes market share and company profiles of major participants in the global market. The market players are profiled using attributes such as company overview, financial overview, business strategies, SWOT analysis and recent developments in the field of pentaerythritol. For this research, we conducted in-depth interviews and discussions with key industry participants and opinion leaders. Primary research represents bulk of the research efforts, supplemented by extensive secondary research. Secondary research also includes a search of recent trade and technical writing, Internet sources, statistical data from Government websites, trade associations and agencies. To manage the scope of the research certain assumptions were made. All the market estimates and forecast have been calculated on the basis of sales and consumption. Inflation is not a part of pricing in this report and price has been kept constant throughout the year for calculating market size. Given that different end-users use different types of products, pricing for each application varies according to region while estimating and forecasting market revenue on the global basis. The global average bulk prices of chemicals have been used for computation of value of market. The report segments the global pentaerythritol market as,.

Chapter 4 : Ceramic Coating Agents (2-liquid type) - Business Matching Site(Database) TTPP - JETRO

Green & Bio-based Solvents Market for Paints & Coatings, Printing Inks, Commercial & Domestic Cleaning, Adhesives & Sealants, Pharmaceutical, Cosmetics, and Other Applications - Global Industry.

It serves multinationals, as well as regional and local customers. North America and China drive growth Additives is a major supplier of flame retardants, polymer additives, and waxes for functional effects, for example in plastics, coatings, printing inks, adhesives, textiles, and fibers, improving heat, light, and weather resistance, among other benefits. This Business Unit also offers innovative and sustainable products such as patented non-halogenated flame retardants, which provide environmental benefits for electrical and electronic equipment. The Business Line Healthcare Packaging offers controlled atmosphere-packaging solutions for the pharmaceutical industry to protect products from moisture and oxygen. Pigments supplies organic pigments, pigment preparations, and dyes that meet the high standards for colors in industrial, decorative, and automotive coatings. It also provides solutions for the plastics industry and applications such as home and personal care, aluminum, seed treatment, and stationery. Solutions for traditional printing as well as inkjet and toner applications complete the portfolio of Pigments. This was enabled by increased commercial and technical capabilities in these regions, as well as expanded capacities of existing sites and investments in new facilities in China. Global megatrends and regulations impel business transformation In , global megatrends continued to increase demand for the plastics and coatings industry. Population growth and urbanization pose huge challenges for food security, increasing the need for more effective food preservation packaging solutions that deliver extended shelf life, and requiring new solutions for crop protecting plastic films. Changing lifestyles amplify connectivity and urge miniaturization of electronic devices, while sustainable mobility demands lightweight and low-emission technologies, as well as smart grids and traffic control systems. The mobility trend towards lower weight in cars increases the use of plastics and composite materials. Electric vehicles have new safety requirements. In addition, cars have an increasing amount of electronics on board for connectivity and convenience. In all these areas, polymer additives and flame retardants offer unique value contributions. Stricter environmental regulations are driving innovation. For Additives, the increased awareness of fire safety in emerging economies is opening new opportunities for the development of safer flame retardants. Masterbatches is facing new customer requirements, given the intensified regulations on food packaging. Furthermore, more stringent enforcement of regulations regarding the emissions of Volatile Organic Compounds VOC is creating particular challenges in the coatings industry in China, requiring Clariant to create new sustainable solutions. Idea to Market 2. This diverse product portfolio offers high performance in various applications, including coatings and inks, polish and care, agricultural coatings, and plastics processing. Based on a secure supply of renewable, non-food source and with consistent quality and versatility, it presents a direct alternative to natural hard waxes and fossil-based waxes. In , Masterbatches focused on accelerating innovation projects at the Project House facility, a global masterbatches focused innovation facility located in the Milan area, and in its global network of application centers. For example, Project House has made significant progress in the field of food preservation solutions that Clariant intends to commercialize soon. Using the strong experience and know-how in the laboratory in Ahrensburg, Germany along with a market leadership position on chemical foaming agents for specialized applications, Masterbatches developed a breakthrough chemical foaming solution that is used in extrusion blow molding for bottles. This technology enables weight reduction of bottles, translating into significant savings of material usage and costs. After implementing a new innovation strategy in , Pigments focused on further adapting the innovation governance by adopting a stringent stage-gate process in Stage-gate meetings are now held monthly, which allows for a prompt presentation and evaluation of new business opportunities, ensures a regular project status review, allows early escalation of hurdles and leads to an overall accelerated time-to-market. An example of the successful innovation capability of Pigments is the launch of a new,

chlorine-free magenta pigment for digital printing Toner Magenta F9B. Ideation and expertise to translate this into products and solutions are essential for sustaining our business and profitability. Additives conducted regular ideation workshops with both direct and indirect customers to generate a better understanding of unmet needs and identify innovation potential. For example, the technological transition to non-halogenated flame retardants required close collaboration between multiple manufacturers and flame retardants users. Clariant was a driving force in this industry transformation. Pigments also embraces collaboration to strengthen its customer focus. In response to the increased food safety requirements related to food contact packaging, the Business Unit engaged in workshops with companies along the value chain. By understanding the needs of brand owners for food packaging colorants, Clariant can enhance its value-based selling activities. This enables Pigments to develop differentiated solutions that help counteract the commoditization trap of the market. Masterbatches focused on streamlining the Market to Customer process to simplify customer interaction and increase customer retention rates, by analyzing the factors influencing individual retention rates in each country and following-up with adequate measures to improve them. In , Masterbatches concentrated mainly on growth in the engineering and high-temperature resins business, the solution-oriented additives business, and the healthcare sector. This successful path continued in Differentiated steering enabled the three Business Units to focus on expanding their reach to markets and customers. Additives aligned its Business Lines and regional sales units along focus segments within Plastics, Coatings, and Consumer Markets to achieve a stronger customer and growth focus. Pigments fostered cross-functional collaboration between the sales, supply chain, and operations departments, and developed a product calculator to easily determine the product prices that optimize profit margins. Masterbatches continues to focus on higher sales growth to optimize revenues and plant utilization rates across the world. Customer to cash 2. The tool helped Additives consolidate all Business Lines and regional supply chain responsibilities in one professionalized supply chain management organization that enables transparent planning, faster responsiveness as well as higher efficiency and customer orientation. With the support of Clariant Operational Excellence, Masterbatches implemented the Inventory Health Check IHC methodology, which allows the local teams to optimize inventory levels based on elaborate data and market analyses. At the same time, Pigments was working on the adoption of the IHC methodology in Europe over the course of Masterbatches invested in a new production site in Cuddalore, India to serve the healthcare packaging business line and ensure short lead times, competitive pricing, and a close relationship with the growing customer base on the subcontinent. Masterbatches implemented new production lines for engineering and high-temperature resin compounding in Europe, China, and the United States. A new line will also installed in Lewiston, Maine, USA dedicated to compounding for healthcare applications. The Business Unit also built new capacity for white masterbatch in Europe and opened a dedicated white masterbatch facility in Saudi Arabia in January , both of which are already operational. Additives announced three new production facilities in China, the biggest market for additives. The third site, a joint venture between Clariant and Tiangang Auxiliary Co. The new sites will help Clariant serve the Chinese market faster and more flexibly. Pigments continued to optimize the product allocation within their production network. This led to higher production capacity and product availability, resulting in improved customer service.

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Chapter 5 : Plastics & Coatings - Clariant Integrated Report

The report analyzes and presents an overview on "Green & Bio-Based Solvents Market Size, Trends and Forecast " worldwide. Solvents are liquids with the capability to dissolve other materials without any chemical change in the solvent or the material. Based on the type or source of raw material.

Paint and Coatings Industry Overview Chemical Economics Handbook Published April The coatings industry is one of the most heavily regulated industries in the world, so producers have been forced to adopt low-solvent and solventless technologies in the past 40 years, and will continue to do so. The number of coatings producers is large, but most are regional producers, with only 10 or so large multinationals. Most of the large multinationals have expanded operations in fast-growing areas like China. The most noteworthy trend has been consolidation, especially among the largest producers. Production and consumption are nearly identical in each country, as trade is limited to relatively small quantities of high-value product. Generally, coatings grow in tandem with the economy, so growth will continue to focus on the developing world. The following pie chart shows world production of paints and coatings: The major change that has taken place in the coatings industry during the last 40 years has been the adoption of new coating technologies. These new coating technologies include waterborne thermosetting emulsion, colloidal dispersion, water-soluble coatings, high-solids coatings, two-component systems, powder coatings, and radiation-curable coatings. Coatings provide two primary functionsâ€”decoration and protectionâ€”that are of considerable economic importance. Without coatings, product lives might be shortened drastically and many products would not even be marketable. These are usually applied outdoors in ambient conditions. The coatings industry in the United States, Western Europe, and Japan is mature and generally correlates with the health of the economy, especially housing, construction, and transportation. In Japan, however, consumption of coatings will experience relatively slow growth during this period, as a result of the lack of growth in major markets such as automotive OEM, machinery, and appliances. In emerging countries, coatings are growing at a much faster rate. On a value basis, it is likely that growth will be even higher as a result of increased production of relatively higher-valued coatings. The multinational producers should gain even more presence in the developing world as living standards increase and per capita consumption of coatings rises. Through the next five years, air pollution regulations will continue to be a driving force behind the adoption of new coating technologies. Despite the overall relatively slow growth in demand anticipated for coatings, waterborne and highsolids coatings, powders, UV curables, and two-component systems appear to have good growth prospects. In general, environmental regulations are becoming more stringent in all regions to limit emissions of volatile organic compounds VOCs and hazardous air pollutants HAPs , not only in the industrialized world, but also in developing countries like China. The coatings industry is one of the larger consumers of solvents, which are mostly derived from petrochemical feedstocks and refinery operations. The coatings industry also uses a considerable quantity of nonpetrochemical feedstocks, such as pigments and additives, which are not very dependent on crude oil and gas prices. The nonpetrochemical portion of the feedstocks is approximately one-third, on a volume basis. One new area of interest is nanotechnology, with tens of thousands of patents issued already just for the coatings industry. Very small ceramic or metallic particles can be added to paint formulations to modify specific properties e. The average size of nanoparticles is 10â€”70 nanometers, consisting of less than 6. At these sizes, the ratio of surface area to mass becomes significant, giving the particles unique properties. For example, at 2 nanometers, the conductivity of metal particles changes and at 20 nanometers, the transparency of ceramic particles changes. At 20 nanometers, particles of gold turn red and their plasticity disappears. Some of the futuristic applications are nanotubes for electrically conductive coatings and to increase the speed of reaction of thermosetting resins; organosilane dendrimer coatings; buckyball coatings for machine parts; and metals for conductive coatings in inks. The technology is limited mainly to highly specialized applications because of the high cost per unit volume needed to reduce the size of

particles and the need to add surface modifiers to keep the particles from agglomerating. Recent research efforts have been focused primarily on functionalizing the particle surface of the nanoparticles to make them more compatible with the coating resin systems, so that easy dispersion, low viscosity, and covalent bonding between the particles and resins are achieved.

Chapter 6 : Pentaerythritol Market- Global Industry Analysis, Size, Share, Forecast

Additives is a major supplier of flame retardants, polymer additives, and waxes for functional effects, for example in plastics, coatings, printing inks, adhesives, textiles, and fibers, improving heat, light, and weather resistance, among other benefits. This Business Unit also offers innovative and sustainable products such as patented non.

The Supply Chain Analyst will work cross-functionally to improve processes that positively impact the customer, asset management, and profitability across the division. You could be involved in ensuring the effectiveness of the following processes: Secure and allocate appropriate resources and manage projects to meet Divisional goals and achieve financial objectives. Communicate and work with all levels of the organization. May manage a large multi-function program or a set of projects. Interact with colleagues, suppliers and customers. Lead the formulation and development of projects. Provide direction and guidance to project leader. Monitor progress on schedule, budget and technical output. Provide guidance to the team on ELS projects. IND GD All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability, protected veteran status or other protected status. All your information will be kept confidential according to EEO guidelines. A team player who works cooperatively with other members in the laboratory. Conducts maintenance, calibration, and cleaning of laboratory equipment. Sets up test apparatus and conducts tests units following methods, procedures, standards, and sequences. Lies out and assembles units for equipment according to designs and specifications. Modifies equipment by adding, removing, or altering components as defined by predetermined diagrams and sketches. Corrects malfunctions by making adjustments or replacing parts or components as directed. Uses hand and small power tools, and various measuring and testing devices in performing job duties. May monitor and verify quality in accordance with statistical process or other control procedures. Manage inventory of experimental raw materials; procure and ship raw materials for trials and finished goods to customers. Lifting of materials up to 50 lb might be involved. Order lab supplies, chemicals and gasses. Able to work overtime, when needed. Documents test data from performed testing and reviews test results with engineering personnel. Confers with engineering and other technical personnel to resolve testing problems such as product or equipment issues, malfunctions, incomplete test data and interpretation. Conduct lab testing in support of project management, customer response, process technology, and segment and emerging technology teams. Conduct testing of applicable materials and components for characterizing material properties and performance attributes. Support product development and existing products through material and performance characterization and trials at bench, pilot, and commercial stages. Performs chemical and physical analyses and tests required for research, development, or quality control of processes or products. May participate in the development, maintenance and refinement of internal quality control and reliability programs. May participate in field trials and evaluations; provide measurements, observations, and document findings with written reports. Develops test methods and test protocols. Interprets analytical results, draw conclusions and theories, and communicate the impact of product performance. Interpret and analyze data to provide conclusions and recommendations for product development, problem solving, and continuous product improvement. Delivers timely and accurate analytical results and technical reports for the purposes of supporting research projects, testing, troubleshooting and resolving customer complaints, as well as performing competitive product benchmarking, developing or improving existing products and supporting the various business or commercial teams. Provide written and graphical reports utilizing basic statistical tools and methods. Makes recommendations regarding improvements to test methodology. Performs technical and record keeping duties in conformance with company and regulatory policies and standards to meet quality and accuracy requirements. Documents detail of process, which can be used for problem resolution, and understanding of product behavior under different processing conditions. Prepares product preliminary data sheets as needed. Provides reports on product testing to be utilized in customer presentations. Creates raw

material specs and product specifications as needed. Practices all health and safety procedures, policies and practices of Avery Dennison. Maintain a clean and organized work area. Attends all required safety training. Participates in or leads lab safety initiatives. Associates Degree in Science or Engineering Technology. Demonstrates knowledge of procedures and equipment. Understanding of computer systems, such as Microsoft Office, Lotus Notes and function specific software. General scientific and engineering knowledge. Good analytical and problem solving skills. Good verbal and written skills. Knowledgeable on how to make accurate testing and engineering computations. Able to follow oral and written directions and understands basic concepts of testing, observing and preparing reports. Good organization and attention to detail. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, sexual orientation, gender identity, disability, protected veteran status or other protected status. The Shift Supervisor Trainee performs work as directed in order to prepare for future supervisory responsibilities, completes basic operations and management skills training, and also learns about key aspects of the business e. Upon successful completion of the training program, Shift Supervisor Trainees are eligible to be considered for promotion to open Operations Supervisor or Shift Supervisor positions. When there is no manager onsite, the Operations Supervisor or Shift Supervisor leads the store staff, ensures that store operations run smoothly, and is responsible for ensuring the completion of all opening and closing procedures. Ability to work a flexible schedule, including some early morning, overnight and weekend shifts, to work overtime as needed. Preferred Qualifications Experience in retail Education High school diploma or equivalent required Business Overview CVS Health, through our unmatched breadth of service offerings, is transforming the delivery of health care services in the U. We are an innovative, fast-growing company guided by values that focus on teamwork, integrity and respect for our colleagues and customers. What are we looking for in our colleagues? We seek fresh ideas, new perspectives, a diversity of experiences, and a dedication to service that will help us better meet the needs of the many people and businesses that rely on us each day. Our energetic and service-oriented colleagues work hard every day to make a positive difference in the lives of our customers. CVS Health is an equal opportunity employer. CVS Health will consider qualified job candidates with criminal histories in a manner consistent with federal, state and local laws. CVS Health will not discharge or in any other manner discriminate against any Colleague or applicant for employment because such Colleague or applicant has inquired about, discussed, or disclosed the compensation of the Colleague or applicant or another Colleague or applicant. Furthermore, we comply with the laws and regulations set forth in the following EEO is the Law Poster: If you require assistance to apply for this job, please contact us by clicking Advice and Counsel CVS Health does not require nor expect that applicants disclose their compensation history during the application, interview, and hiring process. For inquiries related to the application process or technical issues please contact the Kenexa Helpdesk at Please note that we only accept resumes via our corporate website:

Chapter 7 : Biologics Market Size, Share & Industry Report

The report also highlights opportunities in the ECH market at the global and regional level. The report includes detailed value chain analysis, which provides a comprehensive view of the global ECH market.

Understanding how an adhesive works is difficult since adhesive performance is not one science of its own, but the combination of many sciences. Adhesive strength is defined mechanically as the force necessary to pull apart the substrates that are bonded together. Understanding the performance of a bonded assembly of adhesives requires knowledge of both chemistry and mechanics. Often the strength of a bonded assembly is discussed in terms of adhesion. Adhesion is the strength of the molecular layer of adhesive that is in contact with the surface layer of the substrate, such as wood. Some laminated structures will have a fiber-reinforced plastic FRP layer bonded to the wood; therefore, it is important to understand how the bonding to the FRP may be different from bonding to wood. Other applications could involve the bonding of wood to concrete or metal. One type of lignocellulosic material that is hard to bond to is wheat straw because it has a nonpolar waxy surface that makes it hard for the adhesive to wet and penetrate to the cellular structure. Uses and Applications There are basically two types of adhesives: The main application areas of the product are furniture, construction, paints and stationery. Water-based adhesives are used for paper and film overlays, doors, high-pressure laminates, and general assembly. Water-based furniture-adhesive technologies include emulsions, contact cements, polyurethanes and natural products. Other end uses for water-based adhesives include consumer, automotive, bookbinding, footwear, foam fabrication and rubber-to-metal bonding. White and wood glues are larger-volume consumer adhesives. Glue sticks are a small-volume consumer application that is not thought of as being water-based, however about one-half of their formulation consists of water. Packaging and furniture are the leading applications for PVAC adhesives, combining for two-thirds of the weight. Market Survey Over the last few years, the adhesive business has seen global players setting up new capacities in India. With customs duty nearing ASEAN levels, competition will further intensify from imports as well as the low cost local players. Strong construction activity in recent years has boosted consumption of flooring adhesives, nearly all of which are water-based. Other larger formulated water-based construction-adhesive applications include glass insulation, and paper and vinyl wall coverings. Water-based technology is well established, comprising nearly three-quarters of the volume and almost one-half of the dollars. The technology is entrenched in all of the leading adhesive end-use markets. As opposed to other industries, such as coatings and inks, most of the adhesives industry is already environmentally compliant. In dry poundage, adhesive use exceeds that of the coatings industry 4. Water-based technology is already a large percentage of the adhesives industry and is forecast to match industry growth. Few Major Players are as under: Century Plyboards India Ltd. D I C India Ltd. N G Adhesive Industries Pvt. S R Continental Ltd.

Chapter 8 : 20 Best Polymer Adhesive jobs (Hiring Now!) | Simply Hired

Market Trends & Forecast - The latest market trends and accurate forecast information is crucial to devising a successful business plan.

BCC Research Published on SpecialChem The future outlook for ultraviolet UV -cured resins depends upon numerous factors, including government norms, usage patterns of UV-cured resins in different industry sectors, raw material price volatility, evolution of potential substitutes and supply chain optimization by vendors. BCC Research reveals in its new report that rising demand for industrial coatings and environmentally friendly coatings are expected to drive healthy market growth. BCC Research Ultraviolet light curing is anticipated to drive the evolution of photo-polymerization technology. UV light exposure causes photo-polymerization in resins that make them denser than air-cured resins. During UV curing, a photoinitiator is used as an agitator to start the polymerization process by capturing UV light. UV-cured resins can transform from liquid to solid within a short period of time. Therefore, after UV curing, the resin becomes a potential substitute for currently used plastics. Inks, the fastest growing segment with a five-year CAGR of 9. The UV-cured resin market is ripe for growth. A key driver is the rising application opportunity of UV curing resins in the graphic arts, industrial coating and electronic industries. Other growth drivers include the growing demand for UV-cured resins in different end-use industries, expansion of product portfolios related to UV-cured resins by manufacturers to penetrate untapped markets, and rising demand for green coatings. Stringent emission laws by governments in different countries have pressured end-user industries to adapt UV-cured resins in the form of eco-green coatings. Rising demand for materials with faster curing time in different industry verticals is driving the growth of the UV curing resin market, as well. Meanwhile, recent developments in the chemistry field of epoxy and polyester acrylates have created opportunities for manufacturers to broaden the depth and width of their product portfolios regarding UV-cured resins. Technologies and Global Markets AVMA examines technologies for UV-cured resins which are anticipated to drive the evolution of photo-polymerization technology. Analyses of global drivers, value chain, market and product trends, with data from , , and projections of CAGRs through are provided. Their reports provide 5-year market forecasts with important statistical and analytical information on the markets, applications, industry structure, major players, market shares, industry dynamics, technology and technology shifts, and international developments relevant to these critical markets. Readers get highly key, forward-looking information on hard-to-find market intelligence and insights into complex issues that allow them to acquire a competitive edge, refine their strategic planning and identify business opportunities. If you liked this News, you might enjoy our Coatings Industry Newsletter. All the Industry News delivered twice a week right to your inbox.

Chapter 9 : Industrial & Eco-friendly Coatings Drive the UV-cured Resins Market: BCC Research

As opposed to other industries, such as coatings and inks, most of the adhesives industry is already environmentally compliant. Adhesive is the second-largest industry for water-based technology in dollar value, trailing only the coatings industry ($ billion sales).

Brake linings Aramids, acrylics Synthetic fiber volumes have grown at the expense of natural fibers. The drivers are lower costs and technical improvements, which allow the synthetics to emulate desirable natural fiber aesthetics while exhibiting superior in-use performance. The commodity markets are divided primarily among nylon, polyester, and polyolefin, with polyester emerging as the largest. Cost-performance and environmental considerations have led to a diminution in the use of cellulosics and acrylics. The introduction of a new commodity fiber is generally regarded as unlikely. This same time period has seen the rapid growth of high-performance fiber technologies. These technologies fall into three classes: High-modulus, high-strength fibers based on rodlike, liquid crystalline nematogenic polymers. The most common examples are the lyotropic aramids and the thermotropic polyesters. These fibers are characterized by tensile moduli greater than 70 gigapascals GPa , tensile strengths on the order of 3 to 4 GPa, and low properties in compression or shear. Morphological manipulation of conventional polymers, such as high-molecular-weight Page 80 Share Cite Suggested Citation: Polymer Science and Engineering: The Shifting Research Frontiers. The National Academies Press. Polymeric precursor fibers that can be converted to other chemical forms after spinning. The most common examples are acrylic fibers that can be converted to carbon fibers and a variety of silicon-containing polymeric fibers that can be converted to silicon carbide or silicon nitride fibers. Typical applications of high-performance fibers are composite reinforcement, ropes and cables, and antiballistic clothing. As a group, these fibers represent successful technical developments, but they have proved less commercially attractive than once believed for a variety of reasons. The spinning process can be described as follows. A polymer is first converted to a liquid through melting or dissolution, and the liquid is then continuously forced through a spinnerette a plate with many of small holes to form filaments. Most polymeric fibers are semicrystalline. If the polymer forms a stable melt, the process is called melt spinning. For polymers that degrade prior to melting, the polymer is spun from a solution; if the solvent is evaporated, the process is termed dry spinning; if the solution is coagulated in a nonsolvent bath, the process is termed wet spinning. Removal of the spinnerette from the wet spinning coagulation bath is the innovation known as dry-jet wet spinning. The ratio of final filament velocity to the initial filament velocity is termed the drawdown ratio. The principal parameters controlling the as-spun structure and, hence, properties of the as-spun filament are the rate of cooling and the applied stress. Crystallinity once formed can be further oriented by stretching and perfected through annealing. Key structural elements are the amount and orientation of crystalline regions, the orientation of noncrystalline regions, and connectivity between regions, tie molecules, and so on. Careful control of the sequence in which chains are oriented and crystallized has a profound effect on the microstructure produced. Such controlled processing allows, for example, the decoupling of crystalline and noncrystalline orientation, enabling fibers with high tensile modulus correlated with high crystalline orientation and low thermal shrinkage correlated with low noncrystalline orientation to be produced. Typical spinning speeds are thousands of meters per minute, typical melt drawdowns are on the order of , and typical solid-state draw ratios range from about 2 to 6 in conventional processing to greater than 50 in the production of certain high-performance products. High-performance fiber processing is characterized by maximizing axial chain orientation and minimizing Page 81 Share Cite Suggested Citation: To control friction and static behavior in subsequent processing, a variety of oils or other surface treatments are applied to the fibers prior to take-up. The many complex processing steps of fibers add to the stress-temperature history of the fiber and hence significantly modify the end-use properties of the material. To a large extent, the conditions employed in spinning, in addition to the particular chemistry of the polymer being spun, determine the end-use

performance of a fiber. Work on future fibers will focus on producing cost-performance improvements and product variants through morphological control rather than new chemistries. With the huge lengths of fibers produced, process robustness and property uniformity have always been major issues; future products will make more use of advanced computerized process control and will operate in areas of property response that are less sensitive to minor process variation. Elimination of downstream process steps will lead to additional cost-performance improvements, for example, on-line texturing and surface modifications to meet specific friction or adhesion requirements. Environmental considerations will influence future fiber developments in a number of areas. The elimination of solvent-based processing will be driven by stricter emissions standards, as will the elimination of heavy metal catalysis. Novel processes based on very fast melting techniques e. The reduction of off-specification production will become more important as the cost of waste disposal increases and as easy-to-reclaim fibers grow in importance e. The future of high-performance fibers lies in the reduction of costs and the improvement of utilization. The former is best influenced by lower-cost monomers, and the latter through the development of manufacturing technologies that allow cost-effective part production from fiber-reinforced composites. High-performance fiber development will cease to be solely performance driven and will, as in the case of all other fibers, become driven by cost and performance. Silks, produced by worms and spiders, have attracted attention because they possess tensile properties similar to those of high-performance synthetic fibers but with much higher toughness. The use of recombinant DNA techniques allows silks of specific molecular architectures to be produced and their performance to be correlated with specific chemical and physical features. The increased structure-property insights gained from these studies should allow the definition of biomimetic fibers, based on other than naturally occurring amino acids, with greatly improved performance characteristics. Page 82 Share Cite Suggested Citation: Adhesives have been used for most of recorded history. They are mentioned in Egyptian hieroglyphics, in the Bible, and in the writings of the early natural philosophers. The physical strength of an assembly made by the use of adhesives, known as an adhesive joint, is due partly to the forces of adhesion, but primarily to the cohesive strength of the polymeric materials used to formulate the adhesive. Thus, the range of strengths available in adhesive joints is limited to the strengths of the polymers useful in the formulation of adhesives. Indeed, the technology of adhesives tracks well with the technology of polymers. As new polymers were synthesized, new adhesives were developed that used those polymers.