

1: Handbook of Pharmaceutical Excipients - www.enganchecubano.com

PHARMACEUTICAL MANUFACTURING HANDBOOK Regulations and Quality SHAYNE COX GAD, PH.D., D.A.B.T. Gad Consulting Services Cary, North Carolina A JOHN WILEY & SONS, INC.

There is significant overlap between the biotechnology sector and pharma. Pharma is a dynamic industry with rapid growth and the potential for high profits. Individual pharma stock investors face a difficult task in analysis due to the high level of technical expertise required to adequately evaluate the viability of potential new products, as well as the continued prospects for existing FDA-approved drugs. However, the greatest returns come from smaller companies that achieve scientific breakthroughs. The analysis looks at five competitive forces that influence an industry: Threat of New Entrants The big payoffs available in the pharmaceutical industry lead to a steady flow of new companies being created. A team of researchers with a hot idea or newly granted patents can find venture capital funds eager to provide millions of dollars in startup funding. These smaller companies pose no serious threat to big pharma. Power of Suppliers Suppliers have very little power in the pharmaceutical industry. The raw materials for manufacturing drugs are commodity products in the chemical industry, which are available from numerous sources. Most of the equipment used in manufacturing and research is available from multiple manufacturers. Suppliers usually offer multiple products to the manufacturer, which moderates pricing on rarer materials and unique equipment. Power of Buyers Pharma is unique among industries because the medical patient has an absolute lack of power regarding pricing. The prescriber of the drugs, the physician, ethically is not allowed to profit from the sale of drugs. The entity that pays for the drugs, the insurance company, only has a say in how much it will pay to the distributor of the drugs, meaning it has little power with the drug manufacturers. The insurer can refuse to pay for treatments it believes are overpriced. Even these entities have little power over newer drugs under patent or drugs with only one manufacturer. Pharmacies focus on their profit margins and have little incentive to provide patients with the lowest possible pricing. Availability of Substitutes The effect of substitutes is dependent on the individual drug. A new FDA-approved blockbuster drug that has patent protection, treats a major health condition and is first to market in its category has a license to print billions of dollars. The development of a new drug that cures a major disease could be worth tens of billions of dollars per year. Once a drug loses its patents, generic drug manufacturers start selling copycat versions at substantially lower prices. Additionally, there is a major international problem with counterfeit drugs. The worst counterfeits are made with low-grade materials and can destroy the reputations of the legitimate products. The huge importance of intellectual property results in strong competition for high-level workers and leading researchers. Even strong nondisclosure and non-compete clauses cannot prevent the leaking of competitive information. Any potential new drug has its public information analyzed for the possibility of creating a similar drug to market as a substitute. The industry exhibits a pattern of firms merging and larger firms buying smaller firms that have promising research or new drugs. Trading Center Want to learn how to invest? Get a free 10 week email series that will teach you how to start investing. Delivered twice a week, straight to your inbox.

2: Handbook of Pharmaceutical Excipients

Associate Timothy Slattery (Antitrust-Washington, DC) has contributed to the Pharmaceutical Industry Antitrust Handbook (2nd Ed.) published by the American Bar Association. Tim was Editor and Contributing Author to Chapter II "Regulatory and Enforcement Framework" of the book. The chapter covers.

Soluble 1 in 20 of glycerin, 1 in 20 of propylene glycol, 1 in 2. In water, acacia dissolves very slowly, although almost completely after two hours, in twice the mass of water leaving only a very small residue of powder. The solution is colorless or yellowish, viscous, adhesive, and translucent. Spraydried acacia dissolves more rapidly, in about 20 minutes. The viscosity of aqueous acacia solutions varies depending upon the source of the material, processing, storage conditions, pH, and the presence of salts. Above this concentration, viscosity increases rapidly non-Newtonian rheology. Increasing temperature or prolonged heating of solutions results in a Pharmaceutical Excipients decrease of viscosity owing to depolymerization or particle agglomeration. See also Section Stability and Storage Conditions Aqueous solutions are subject to bacterial or enzymatic degradation but may be preserved by initially boiling the solution for a short time to inactivate any enzymes present; microwave irradiation can also be used. Powdered acacia should be stored in an airtight container in a cool, dry place. An oxidizing enzyme present in acacia may affect preparations containing easily oxidizable substances. Many salts reduce the viscosity of aqueous acacia solutions, while trivalent salts may initiate coagulation. Aqueous solutions carry a negative charge and will form coacervates with gelatin and other substances. In the preparation of emulsions, solutions of acacia are incompatible with soaps. Leguminosae that grow mainly in the Sudan and Senegal regions of Africa. The bark of the tree is incised and the exudate allowed to dry on the bark. The dried exudate is then collected, processed to remove bark, sand, and other particulate matter, and graded. Various acacia grades differing in particle size and other physical properties are thus obtained. A spray-dried powder is also commercially available. Safety Acacia is used in cosmetics, foods, and oral and topical pharmaceutical formulations. Although it is generally regarded as an essentially nontoxic material, there have been a limited number of reports of hypersensitivity to acacia after inhalation or ingestion. Handling Precautions Observe normal precautions appropriate to the circumstances and quantity of material handled. Acacia can be irritant to the eyes and skin and upon inhalation. Gloves, eye protection, and a dust respirator are recommended. Accepted for use in Europe as a food additive. Included in nonparenteral medicines licensed in the UK. Related Substances Ceratonia; guar gum; tragacanth. Comments Concentrated aqueous solutions are used to prepare pastilles since on drying they form solid rubbery or glasslike masses depending upon the concentration used. Foreign policy changes and politically unstable conditions in Sudan, which is the principal supplier of acacia, has created a need to find a suitable replacement. Other natural by-products of foods can also be used. Studies on bioadhesive granules. STP Pharma Sci ; 13 3: Floating matrix tablets based on low density foam powder. Eur J Pharm Sci ; Natural gums and modified natural gums as sustained-release carriers. Drug Dev Ind Pharm ; 26 Pharmaceutical Excipients 4. Buffo R, Reineccius G. Investigation of the effect of microwave irradiation on acacia powder. J Pharm Pharmacol ; J Am Med Assoc ; 9: Handbook of Food, Drug, and Cosmetic Excipients. Evaluation of certain food additives and contaminants. Acacia "a remarkable excipient: JAMA ; 41 5: Experimenting with a new emulsifying agent tahini in mineral oil. Int J Pharm Compound ; 4 4: Recent advances in the chemistry of acacia gums. J Soc Cosmet Chem ; 2: Specifications for gum arabic Acacia Senegal: Food Add Contam ; 7: Adv Carbohydr Chem Biochem ; Date of Revision 20 August Pharmaceutical Excipients 1. Functional Category Sweetening agent. Applications in Pharmaceutical Formulation or Technology Acesulfame potassium is used as an intense sweetening agent in cosmetics, foods, beverage products, table-top sweeteners, vitamin and pharmaceutical preparations, including powder mixes, tablets, and liquid products. It is widely used as a sugar substitute in compounded formulations,1 and as a toothpaste sweetener. It enhances flavor systems and can be used to mask some unpleasant taste characteristics. Description Acesulfame potassium occurs as a colorless to white-colored, odorless, crystalline powder with an intensely sweet taste. Pharmacopeial Specifications See Table I. Typical Properties Bonding index: Pharmacopeial specifications for

acesulfame potassium.

3: The Certified Pharmaceutical GMP Professional Handbook | ASQ

The Handbook of Pharmaceutical Excipients collects together essential data on the physical properties of excipients as well as providing information on their safe use and applications.

Brody and Kenneth S. Marsh has long served as perhaps the source for packaging technology information. This is the first book written by Packaging Hall of Fame inductee Bauer, who continues to expand his career and experiences, currently in product development for Pittsburgh-based General Nutrition Centers GNC. Bauer was also a presenter at the Pharmaceutical Packaging Forum. Packaging done well provides protection, sterility, and safety. Health care professionals and patients hardly give it a thought. Packaging done poorly usually means a package that is hard to open. From a graphics perspective, more illustrations, perhaps even photos, would add some appeal. But this is not a coffee table-type book; it is a substantive text covering packaging complexities, an important written resource that can benefit engineers, marketers, purchasers, and virtually any packaging professionals or students wanting to know more about packaging in the life sciences areas. Packaging is considered part of the drug, and this is stated clearly in the regulations as part of the complete descriptions and definitions used to define packaging as part of any drug submission. Bauer addresses essential qualification and validation issues here as well. Next comes the aforementioned materials chapter, which examines glass, metal, plastics, polymers, and copolymers. The challenge of sterilization, and the different sterilization processes are reported upon next, including heat, chemical, and radiation sterilization methods. Descriptive details are provided on closure functions, types, dispensers, and liners, all of which are especially important in pharmaceutical containers, particularly in achieving child-resistant and senior-friendly qualities. Continuing his path from the product inside to the container and closure, Bauer takes readers to the outer label, and related labeling requirements, construction, product codes, standards, etc. Label copy is vital in meeting FDA and other regulatory guidelines. Leaving this area out of the Pharmaceutical Packaging Handbook would have been conspicuous. This chapter provides a thoughtful look at many of the most important topics in the life sciences industry, taking readers beyond descriptions of polymers, barrier properties, and the like. Here Bauer examines compliance to drug regimens, unit-dose packaging, anti-counterfeiting, environmental issues, and biodegradable materials--subjects approached frequently in Healthcare Packaging magazine. A page glossary of terms gives you even more bang for your bucks. This fact will focus a spotlight on every aspect of pharmaceutical packaging, manufacturing, and supply chain.

4: Pharmaceutical Press - Handbook of Pharmaceutical Excipients Eighth Edition

Spectroscopy IR spectra see Figure 4. NIR spectra see Figure 5. 11 Stability and Storage Conditions Mannitol is stable in the dry state and in aqueous solutions.

List of Excipient Molecular Weights Index Preface Pharmaceutical dosage forms contain both pharmacologically active compounds and excipients added to aid the formulation and manufacture of the subsequent dosage form for administration to patients. Indeed, the properties of the final dosage form are no longer can excipients be regarded simply as inert or inactive ingredients, and a detailed knowledge not only of the physical and chemical properties but also of the safety, handling and regulatory status of these materials is essential for formulators throughout the world. In addition, the growth of novel forms of delivery has resulted in an increase in the number of the excipients being used and suppliers of excipients have developed novel coprocessed excipient mixtures and new physical forms to improve their properties. The Handbook of Pharmaceutical Excipients has been conceived as a systematic, comprehensive resource of information on all of these topics. The first edition of the Handbook was published in 1976 and contained monographs. This was followed by the second edition in 1985 containing monographs, the third edition in 1995 containing monographs and the fourth edition in 2005 containing monographs. This new edition contains excipient monographs with a new text design and enhanced online features, compiled by over 100 experts in pharmaceutical formulation or excipient manufacture from Australia, Europe, India, Japan, and the USA. All the monographs have been reviewed and revised in the light of current knowledge. There has been a greater emphasis on including published data from primary sources although some data from laboratory projects included in previous editions have been retained where relevant. Variations in test methodology can have significant effects on the data generated especially in the case of the compactability of an excipient, and thus cause confusion. As a consequence, the editors have been more selective in including data relating to the physical properties of an excipient. However, comparative data that show differences between either source or batch of a specific excipient have been retained as this was considered relevant to the behavior of a material in practice. Over the past few years, there has been an increased emphasis on the harmonization of excipients. The Suppliers Directory Appendix I has also been completely updated with many more international suppliers included. In a systematic and uniform manner, the Handbook of Pharmaceutical Excipients collects essential data on the physical properties of excipients such as: Scanning electron microphotographs SEMs are also included for many of the excipients. This edition contains over 100 near-infrared NIR spectra specifically generated for the Handbook. The Handbook contains information from various international sources and personal observation and comments from monograph authors, steering committee members, and the editors. All of the monographs in the Handbook are thoroughly crossreferenced and indexed so that excipients may be identified by either a chemical, a nonproprietary, or a trade name. Most monographs list related substances to help the formulator to develop a list of possible materials for use in a new dosage form or product. Related substances are not directly substitutable for each other but, in general, they are excipients that have been used for similar purposes in various dosage forms. The Handbook of Pharmaceutical Excipients is a comprehensive, uniform guide to the uses, properties, and safety of pharmaceutical excipients, and is an essential reference source for those involved in the development, production, control, or regulation of pharmaceutical preparations. Since many pharmaceutical excipients are also used in other applications, the Handbook of Pharmaceutical Excipients will also be of value to persons with an interest in the formulation or production of confectionery, cosmetics, and food products. Arrangement The information consists of monographs that are divided into 22 sections to enable the reader to find the information of interest easily. Although it was originally intended that each monograph contain only information about a single excipient, it rapidly became clear that some substances or groups of substances should be discussed together. In addition, some materials have more than one monograph depending on the physical characteristics of the material, e.g. Starch versus Pregelatinized Starch. Regardless of the complexity of the monograph they are all divided into 22 sections as follows: Section 2, Synonyms, Lists other names for the excipient, including trade names used by suppliers shown in italics. The large number of suppliers

internationally makes it impossible to include all the trade names. Many excipients are not pure chemical substances, in which case their composition is described either here or in Section 8. Section 6, Functional Category, Lists the functions that an excipient is generally thought to perform, e. Section 7, Applications in Pharmaceutical Formulation or Technology, Describes the various applications of the excipient. Section 8, Description, Includes details of the physical appearance of the excipient, e. Section 9, Pharmacopeial Specifications, Briefly presents the compendial standards for the excipient. Information from the PhEur is also included. Pharmacopeias are continually updated with most now being produced as annual editions. However, although efforts were made to include up-to-date information at the time of publication of this edition, the reader is advised to consult the most current pharmacopeias or supplements. Section 10, Typical Properties, Describes the physical properties of the excipient which are not shown in Section 9. All data are for measurements made at C unless otherwise indicated. Where the solubility of the excipient is described in words, the following terms describe the solubility ranges: Very soluble Freely soluble Soluble Sparingly soluble Slightly soluble Very slightly soluble Practically insoluble or insoluble 1 1 1 1 1 1 part in part in part in part in part in part in less than 1 10⁻¹⁰ 10⁻³⁰ 30⁻¹⁰ 10⁻¹⁰ more than 10 For this edition, near-infrared NIR reflectance spectra of samples as received i. The instrument was controlled by Vision version 2. Spectra were recorded over the wavelength range 1000-2500 nm data points and each saved spectrum was the average of 32 scans. Solid powdered samples were measured in glass vials of approximately 20 mm diameter. Each sample was measured in triplicate and the mean spectrum taken. When more than one batch of a material was available, the mean of all the batches is presented. In previous editions of the Handbook a laboratory project was undertaken to determine data for a variety of excipients and in some instances this data has been retained. For a description of the specific methods used to generate the data readers should consult the appropriate previous editions of the Handbook. Section 11, Stability and Storage Conditions, Describes the conditions under which the bulk material as received from the supplier should be stored. In addition some monographs report on storage and stability of the dosage forms that contain the excipient. Section 12, Incompatibilities, Describes the reported incompatibilities for the excipient either with other excipients or with active ingredients. If an incompatibility is not listed it does not mean it does not occur but simply that it has not been reported or is not well known. Every formulation should be tested for incompatibilities prior to use in a commercial product. Section 13, Method of Manufacture, Describes the common methods of manufacture and additional processes that are used to give the excipient its physical characteristics. In some cases the possibility of impurities will be indicated in the method of manufacture. Section 14, Safety, Describes briefly the types of formulations in which the excipient has been used and presents relevant data concerning possible hazards and adverse reactions that have been reported. Relevant animal toxicity data are also shown. Section 15, Handling Precautions, Indicates possible hazards associated with handling the excipient and makes recommendations for suitable containment and protection methods. A familiarity with current good laboratory practice GLP and current good manufacturing practice GMP and standard chemical handling procedures is assumed. Section 16, Regulatory Status, Describes the accepted uses in foods and licensed pharmaceuticals where known. However, the status of excipients varies from one nation to another, and appropriate regulatory bodies should be consulted for guidance. Section 17, Related Substances, Lists excipients similar to the excipient discussed in the monograph. Section 18, Comments, Includes additional information and observations relevant to the excipient. Where appropriate, the different grades of the excipient available are discussed. Comments are the opinion of the listed author unless referenced or indicated otherwise. Section 19, Specific References, Is a list of references cited within the monograph. Section 20, General References, Lists references which have general information about this type of excipient or the types of dosage forms made with these excipients. Section 21, Authors, Lists the current authors of the monograph in alphabetical order. Authors of previous versions of the monograph are shown in previous printed editions of the text. Section 22, Date of Revision, Indicates the date on which changes were last made to the text of the monograph. Acknowledgments A publication containing so much detail could not be produced without the help of a large number of pharmaceutical scientists based world-wide. The voluntary support of over authors has been acknowledged as in previous editions, but the current editors would like to thank them all personally

for their contribution. Grateful thanks also go to the members of the International Steering Committee who advised the editors and publishers on all aspects of the Handbook project. Many authors and Steering Committee members have been involved in previous editions of the Handbook. For others, this was their first edition although not, we hope, their last. We extend our thanks to all for their support. Thanks are also gratefully extended to the staff of the Pharmaceutical Press and American Pharmacists Association who were involved in the production of the Handbook: The diligent copy-editing and proofreading by Len Cegielka and Janet Pascoe, respectively, helped the authors and editors, we hope, to express their thoughts clearly, concisely, and accurately. Raymond C Rowe, Paul J Sheskey, Marian E Quinn July Notice to Readers The Handbook of Pharmaceutical Excipients is a reference work containing a compilation of information on the uses and properties of pharmaceutical excipients, and the reader is assumed to possess the necessary knowledge to interpret the information that the Handbook contains. The Handbook of Pharmaceutical Excipients has no official status and there is no intent, implied or otherwise, that any of the information presented should constitute standards for the substances. The inclusion of an excipient, or a description of its use in a particular application, is not intended as an endorsement of that excipient or application. Similarly, reports of incompatibilities or adverse reactions to an excipient, in a particular application, may not necessarily prevent its use in other applications. Formulators should perform suitable experimental studies to satisfy themselves and regulatory bodies that a formulation is efficacious and safe to use. While considerable efforts were made to ensure the accuracy of the information presented in the Handbook, neither the publishers nor the compilers can accept liability for any errors or omissions. In particular, the inclusion of a supplier within the Suppliers Directory is not intended as an endorsement of that supplier or its products and, similarly, the unintentional omission of a supplier or product from the directory is not intended to reflect adversely on that supplier or its product. Although diligent effort was made to use the most recent compendial information, compendia are frequently revised and the reader is urged to consult current compendia, or supplements, for up-to-date information, particularly as efforts are currently in progress to harmonize standards for excipients. Data presented for a particular excipient may not be representative of other batches or samples. Relevant data and constructive criticism are welcome and may be used to assist in the preparation of any future editions or electronic versions of the Handbook.

5: Handbook of Pharmaceutical Excipients 6th Edition | Pharma Chit Chat

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6: Handbook - of - Pharmaceutical - Excipients - Handbook-of-pharmaceutical

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8: Handbook of Pharmaceutical Excipients by Raymond C. Rowe

The University of Houston College of Pharmacy was established with the approval of the University Board of Regents on October 16, A committee comprised of pharmacists and related professionals worked with the university to establish the

college and support its operations, and Houston physician and pharmacist Allan Collette served as.

9: Bauer's pharmaceutical handbook lends 'Hall of Fame' packaging perspective | Healthcare Packaging

The Handbook of Pharmaceutical Excipients is a comprehensive, uniform guide to the uses, properties, and safety of pharmaceutical excipients. It collects in a systematic and unified manner, essential data on the physical and chemical properties of excipients.

Understanding injection molding technology Pilgrims in the wilderness The importance of multicultural education Geneva Gay Part 2 : Addressing the challenges Christian women face. Maryland cnc word list Techniques for Managing Verbally and Physically Aggressive Students Virtue and the Veil of Illusion New York Road Runners Running Fitness Log 2007 My life in the Negro Leagues Samsung installation manual for nx58k7850sg Hundred years of fiction Safety in the Sheet Metal Shop Fundamentals of business law today miller 10th edition Health for life maximum calves Sweet Abandon (Heartfire) Intrinsic Geometry Of Biological Surface Growth Green corrosion inhibitors theory and practice Policies for apprenticeship. Police Under Fire Great Yarmouth and Gorlestone pubs Boston tea party book Principles of supply chain management wisner 4th edition The Labours of Hercules (Hercule Poirot Mysteries) Mood enhancing plants Pragmatism and epistemology What is a living thing? My greek beast marian tee THE COMPLETE CAT ORGANIZER GM Full-Size Trucks, Revised Edition Nintendo power players guide 2003 National Longitudinal Survey of Women (03NLSW) The New Generation Witches The structure and content of early representational play : the case of building blocks Stuart Reifel Lesson Summaries in Six Languages (California: Adventures in Time and Place) The Legend of the Eagle Clan Hcm 2010 multilane highway notes Traffic management and control systems Web 2.0 applications The Fifth Rung on Jacobs Ladder Honor, death, and the feminists