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Industrial Alcohol Technology Handbook

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Description

Production of industrial alcohol is an age old practice. But with time, the usage areas as well as production techniques have gone through a major transformation. Industrial alcohol is distilled ethyl alcohol (C_2H_5OH), normally of high proof, produced and sold for other than beverage purposes. It is usually distributed in the form of pure ethyl alcohol, completely denatured alcohol, especially denatured alcohol and proprietary solvent blends. Ethyl Alcohol is the common name for the hydroxyl derivative of the hydrocarbon ethane. Industrial alcohol is distilled ethyl alcohol normally of high proof, produced and sold for other than beverage purposes. Industrial alcohol finds its applications in many chemical industries, pharmaceutical industries, Ink Industries and various allied applications. Much of this alcohol is obtained synthetically from ethylene. However, its production from microbial fermentation using variety of cheap sugary substrates is still commercially important. The various substrates used for ethanol production are sugar crops such as sugarcane, sugar beet, sorghum, etc. provide a good substrate. By product of these crop processing, e.g., molasses, sweet sorghum syrup, etc. are the most common substrates. Cereals like maize, wheat, rice etc are also used for ethanol production. Distillation of industrial alcohol, which is normally not used for consumption, can be made in a two step process. The process of distillation is one with a slow dynamics making it essential to have a carefully planned and designed control system. Ethyl alcohol or ethanol ranks second only to water as the most widely used solvent in chemical industry and as these industries have expanded, so the demand for industrial alcohol has increased.

Some of the fundamentals of the book are base case production of alcohol, survey and natural alcohols manufacture, alcohol from wheat straw, alcohol from sacchariferous feed stocks, conventional process used in Indian distilleries, fermentation, distillation,

continuous rectification and reflux ratio, alcohol recovery, quality of alcohol, steam economy, fuel oil separation, trihydric and polyhydric alcohols, coal gasification, methanol synthesis, coal gasification and raw gas purification, synthesis gas preparation, methanol synthesis and purification, badger conceptual design

This handbook on Industrial alcohol technology provides complete details on process and the technology used in the production of ethanol from various sugar crops and cereals and also briefs the different types of monohydric, trihydric and polyhydric alcohols. This handbook will be very helpful to its readers who are just beginners in this field and will also find useful for upcoming entrepreneurs, existing industries, technical institution, etc.

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NIIR Project Consultancy Services (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. Its various services are: Pre-feasibility study, New Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Preparation of Project Profiles and Pre-Investment and Pre-Feasibility Studies, Market Surveys and Studies, Preparation of Techno-Economic Feasibility Reports, Identification and Selection of Plant and Machinery, Manufacturing Process and/or Equipment required, General Guidance, Technical and Commercial Counseling for setting up new industrial projects and industry. NPCS also publishes various technology books, directories, databases, detailed project reports, market survey reports on various industries and profit making business. Besides being used by manufacturers, industrialists, and entrepreneurs, our publications are also used by Indian and overseas professionals including project engineers, information services bureaus, consultants and consultancy firms as one of the inputs in their research.

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