

# **Petroleum, Greases, Lubricants, Petro Chemicals, Wax, Polishes and Petro Products Formulation and Technology**

[The Complete Technology Book on Candle Making & Designs](#)

**Author:** NIIR Board

**Format:** Paperback

**Book Code:** NI40

**Pages:** 354

**ISBN:** 8186623663

**Price:** Rs. 650.00 **US\$** 100.00

Candles have been used for luminosity and to light up man's celebrations for more than thousand years. The ancient Egyptians have been credited with the honour of developing the first candle, who used rush lights or torches made by soaking the pithy core of reeds in melted animal fat.

However, the rush lights had no wick like a true candle. The development of candle to the present stage went through several stages. Candle making today has taken a shape of small scale industry. It has got attention of a lot of people. From celebrities to designers all are trying their hand in this emerging industry. One pertinent reason is that the use of candle now has not been confined only for devotional purpose or some special occasion. They are now a part of every single moment is it special or routine. They add a touch of warmth in the occasion and that does why have become largely popular. Creativity has added a new spark to the candle making industry. Candle making is a very flourishing industry in modern times owing to the versatile use of candles on various occasions and ceremonies. Candles are prepared by well established methods in multifarious fascinating colours, designs and shapes. The book is one of the best seller and has chapters on: Thermometer Weighing scales ,Measuring flask or jug ,Dipping can ,Bowl ,Iron, Hairdryer ,Pouring jug Materials ,Wicking needle ,Wick ,Wax , ,Dipping ,How to dipped candles Method ,More about dipping , Appliquéd candles ,Painting with wax ,Transfers ,Surface techniques Pressed flowers and grasses How to pressed flower candle Over dipping, etc. This is one of its kind book which deals ostensibly with different candle making processes viz. Dipping, Pouring, Moulding or Casting and Drawing, delineating their technicalities in most illustrious manner with pictorial representations. The book will significantly add your knowledge if you are looking for comprehensive information on candle making industry to start their venture in said industry.

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## **[Modern Technology of Petroleum, Greases, Lubricants & Petro Chemicals \(2nd Revised Edition\)](#)**

**Author:** NIIR Board of Consultants & Engineers

**Format:** Paperback

**Book Code:** NI45

**Pages:** 704

**ISBN:** 9789381039618

**Price:** Rs. 1,875.00 US\$ 150.00

Lubricants, greases and petrochemicals are most versatile on the Industrial Plateau now a day. The significance of Lubricants, Greases and specialty products in the day to day functioning of nearly every machine part, instrument, appliance & device cannot be over emphasized lubricants reduce friction & wear between rubbing parts, thereby enhancing their life. A lubricant is a substance introduced to reduce friction between moving surfaces. It may also have the function of transporting foreign particles. The property of reducing friction is known as lubricity. The broad types of lubricating oils are as under; crankcase oils, gear oils, metal working oils, metal drawing oils, spindle and other textile oils, steam turbine oils. Synthetic lubricants have a higher viscosity index, but are less stable to oxidation. They are suitable for high temperature applications. In the modern industrial year, greases have been increasingly employed to cope with a variety of difficult lubrication problems, particularly those where the liquid lubricant is not feasible. Greases are essentially solid or semi solid lubricants consisting of gelling or thickening agent in a liquid lubricant. Greases and lubricants are one of the important products derived from crude petroleum. Petroleum is formed by hydrocarbons (a hydrocarbon is a compound made up of carbon and hydrogen) with the addition of certain other substances, primarily sulphur. Petroleum in its natural form when first collected is usually named crude oil, and can be clear, green or black and may be either thin like gasoline or thick like tar. The principal product of petroleum refining are motor gasoline, aviation gasoline, kerosene, jet fuels, diesel fuels, lubricating oils and fuel oils. Considerable quantities of petroleum wax, bitumen, liquid petroleum gases (LPG), industrial naphtha and coke are also produced. Petrochemicals are chemicals made from petroleum (crude oil) and natural gas. Petroleum and natural gas are made up of hydrocarbon molecules, which are comprised of one or more carbon atoms, to which hydrogen atoms are attached. The Indian lubricants industry claims to be the sixth largest in the world. The petrochemical industry in India has been one of the fastest growing industries in the country. This industry also has immense importance in the growth of economy of the country and the growth and development of manufacturing industry as well. Some of the fundamentals of

the book are types of lubricating oils, crankcase oils, gear oils, metal working oils, metal drawing oils, spindle and other textile oils, steam turbine oils, synthetic lubricants, formulations and compounding of lubricants, additives for straight mineral oil gear lubricants, raw materials for lubricants, equipments for lubricants manufacture, reclamation of used lubricating oil, nature of contaminants in used lubricating oil, gravity methods of purification, metal forming and deforming lubricant, cutting oils, heat treatment oils, greases, sodium soap greases, lithium soap greases, aluminium soap greases, mixed soap greases, complex soap greases etc. The objective of this book is to furnish comprehensive information about nearly all prominent types of lubricants, greases and petrochemicals. This book covers formulae, processes of various petroleum items. This book is an invaluable resource for entrepreneurs, existing units, professionals, institutions etc.

# **The Complete Book on Distillation and Refining of Petroleum Products (Lubricants, Waxes and Petrochemicals)**

**Author:** NIIR Board of Consultants & Engineers

**Format:** Paperback

**Book Code:** NI152

**Pages:** 496

**ISBN:** 8186623973

**Price:** Rs. 975.00 US\$ 100.00

The most dynamic industry of the century is the petroleum and petrochemicals industry. It has taken the fundamental knowledge of chemistry and chemical engineering and transformed itself from a simple processing industry for fuel and lubricants to an extremely complex chemical process industry which has branched out into synthetic rubber, plastics, fertilizers and many other fields. Petroleum (crude oil) is a mixture of different hydrocarbons. Many useful products can be made from these hydrocarbons. The fractions are separated from one another using a process called fractional distillation. This process is based on the principle that different substances boil at different temperatures. The applications of distillation in petroleum industry are quite varied. The assaying of crude oils and the evaluation many petroleum products depend on distillation. Petroleum products obtained from processes such as distillation often need supplementary purification. Refining is a process of purification of products by means of chemical process. Chemical engineering and petroleum processing have in a very real sense grown up together. Studies on fluid flow, heat transfer, distillation, absorption, and the like were undertaken and applied to wide variety of materials because of need in the petroleum processing field. The largest share of oil products is used as energy carriers: various grades of fuel oil and gasoline. Heavier (less volatile) fractions can also be used to produce asphalt, tar, paraffin wax, lubricating and other heavy oils. Refineries also produce other chemicals, some of which are used in chemical processes to produce plastics and other useful materials. Hydrogen and carbon in the form of petroleum coke may also be produced as petroleum products. Petrochemicals have a vast variety of uses. The use of petroleum hydrocarbons to make synthesis gas has made petroleum and natural gas the world main source of ammonia, the source of almost all nitrogen fertilizers. While petroleum product demand in the western world is relatively stagnant, for developing countries, particularly those in Asia, demand is booming. It is all about growing populations and their escalating need for energy. Some of the fundamental of the book are the nature of petroleum, crude oil processing, distillation in the petroleum industry, refining of lubricating oils, petrolatum, and waxes, residue fluidized catalytic cracking, chemical thermodynamics

of petroleum , benefits of biodiesel produced from vegetable oil, petroleum products used as fuel oils, manufacture of asphalt from petroleum, petroleum waxes, chlorinated waxes, synthesis gas etc. The book presents information and data which will help oil companies, large scale users of commercial petroleum products in efficient storage, handling and utilization of these products. Different formulae, processes for the production of petroleum products are given in this book. This will be very useful book for new entrepreneurs, existing units, technocrats, researchers, institutional libraries etc.

## [Directory/ Database/ List of Petroleum & Petro Product Companies/ Industries in India \(Manufacturers, Dealers & Distributors\) 3rd Edition](#)

**Format:** CD-Rom

**Book Code:** NID81

**Price:** Rs. 3,540.00 **US\$** 100.00

Offline Business directory is the best thing in today's business world. If you are searching for Buyers, then this Directory/Database is the perfect tool for you. By having the right business leads, you would be able to have immediate communication with prospective businesses, partners and customers through this boundless list of Petroleum & Petro Product Companies/ Industries in India (Manufacturers, Dealers & Distributors) in excel format, .xls We offer an extensive suite of Directories/ database to assist you in reaching the right businesses and people quickly and easily. Business Directories are used for sales planning, finding Buyers and marketing research to perform business analysis. With our company database/Directory, you will have access to company list. You will find a business list consisting of company contact details. We compiled list of companies in excel format to give you access to over hundred thousands of major & minor businesses and companies. From small business to Corporate Houses, our data is complete with business contact information to help you connect with the right companies or buyers. This database collection is a great resource for those suppliers who offer their goods and services to Petroleum & Petro Product Companies/ Industries in India (Manufacturers, Dealers & Distributors) like, Automobile Companies, Manufacturers/ Industries, Packaging Material Suppliers, Plant & Machinery Suppliers, Office Equipment Suppliers, Office Furniture Suppliers, Mobile Companies, Raw Material Suppliers, Advertisement Agencies, Office Stationery Suppliers, Transporters, Courier Companies, IT, Computer Software Companies, Placement Companies, Labour Contractors etc. Information in this database contains over 2,000 records of Petroleum & Petro Products in India. Details Includes: Company Name (2,000), Contact Person (1,260), Postal Address (2,000), Phone No. (1,900 Landline or Mobile), Fax (1,100), E-mail (2,000), Website (700). Note: All Records does not contain all fields of information. However, maximum information has been incorporated. Format: MS Excel

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## [The Complete Technology Book on Wax and Polishes \(Reprint\)](#)



**Author:** NIIR Board of Consultants & Engineers

**Format:** Paperback

**Book Code:** NI183

**Pages:** 656

**ISBN:** 9788178330129

**Price:** Rs. 1,675.00 US\$ 150.00

Wax and polishes are used for many purposes. Wax has their principal use in waterproofing; they are mainly consumed industrially as components of complex formulations, often for coatings. Waxes confer matting effects and wear resistance to paints. Although most natural waxes are esters, paraffin waxes are hydrocarbons, mixtures of alkanes usually in a homologous series of chain lengths. These materials represent a significant fraction of petroleum. They are refined by vacuum distillation. The degree of branching has an important influence on the properties. Millions of tons of paraffin waxes are produced annually. They are used in adhesives, in foods (such as chewing gum and cheese wrapping), in cosmetics, and as coatings. Paraffin wax is typical of the agents that are coated on a film or sheet, one that really melt. Waxed paper, still the most widely used heat sealing material, was the earliest product to bring the advantages of heat sealing to packaging. Paraffin wax is mostly found as a white, odorless, tasteless, waxy solid, with an average melting point. The FT waxes are purely synthetic polymers of carbon monoxide and hydrogen which can be best be described chemically as mineral waxes. Duroxons of the B group also serve as additives in the manufacture of lubricating greases for the purpose of raising their dropping point and improving the consistency. There are various types of mineral waxes; lignite wax, montan wax, durmont wax, ozocerite wax, utah wax, peat wax etc. Utah waxes are successfully utilized in dance floor wax, linoleum wax, shoe polish etc. Some other important uses of waxes are in candles, polishes, electrical insulation, coatings and carbon paper. There are various types of polishes having industrial and domestic applications; abrasive polish, aluminium polish, motor car polishes, cellulose friction polishes, furniture polishes, leather belt polishes, pine oil metal polish etc. For many years, petroleum wax was considered a byproduct of lubricant base stock production, it has come onto its own over the last decade and is considered by most refiners to be a relatively high margin product and is often an important contributor to the overall profitability of the refinery. Pure paraffin wax is an excellent electrical insulator. There are many refineries in India which have with fuel, lube, wax and petrochemical feed stocks production facilities. Mineral waxes (including petroleum) account for an estimated 85% of this

global demand, with synthetic waxes accounting for 10% and animal and vegetable waxes, accounting for 5%. Wax consumption is expected to grow at an average annual growth rate of 1% in this decade. Clearly, different regions and different product applications will enjoy different growth rates. This book basically deals with microcrystalline waxes in floor polishes, properties of braxilian grades of carnauba wax, compatibility of paraffin waxes with other substances, synthetic mineral waxes, miscellaneous synthetic waxes, additives for raising melting point of candles, wax coating for fruits, shribs, and plants, effect of paraffin on esparto montan mixtures, water proofing of kraft papers, production of montan wax, polish, abrasives, metal cleaners, nickel silver castings, cleaning, polishing metals for metallographic analysis, paste for wax calf leather, burnishing polishes for automobile maintenance, etc. The purpose of this book is to present comprehensive information of different types of wax and polishes like their processing, properties and uses. This book is very useful for new entrepreneurs, technocrats, professionals and researchers.

# Selected Formulary Handbook

**Author:** NPCS Board of Consultants & Engineers

**Format:** Paperback

**Book Code:** NI191

**Pages:** 576

**ISBN:** 9788190439848

**Price:** Rs. 1,475.00 US\$ 150.00

Formulation is a key process in the overall life cycle so that products are delivered that is of the right quality, at a competitive cost, and is made available within the specified time scale. A formula is an entity constructed using the symbols and formation rules of a given logical language. In science, a specific formula is a concise way of expressing information symbolically as in a mathematical or chemical formula. The chemical formula identifies each constituent element by its chemical symbol and indicates the number of atoms of each element found in each discrete molecule of that compound. If a molecule contains more than one atom of a particular element, this quantity is indicated using a subscript after the chemical symbol and also can be combined by more chemical elements. It is all in the formula, whose implications also remain undiscovered by modern economists. It plays a major role in every process whether it is manufacturing process or preservation. There is a big importance of formula in our life because formulas and equations deal with everyday things like shapes, investments, mixing things, movement, lighting, travel and a host of other things they provide information you can use in planning activities. Some of the fundamentals of the book are foods, foods adulterants, beverages, flavours extracts, dried casein, its manufacture and uses, phosphate of casein and its production, preparation of edible emulsions of solid in fat, gelatin desert, lemon flavor gelatin dessert, cherry flavor, chocolate peanut bars, coffee caramels, butterscotch squares, Everton toffee, licorice drops, fruit jelly, candies, fruit caramels, sausage, American pork sausage, German mince meat, gravy aid kitchen bouquet type Sauer, kraut essential oils, imitation lemon flavor, non alcoholic lemon flavor, non alcoholic imitation lemon flavor, household root beer flavor, temperature readings for syrups, Swedish bitters, pharmaceuticals and proprietary, antiseptic inhalant, antiseptic for telephone mouthpiece, mentholated throat and mouth wash, zinc chloride mouth wash, sterilizing solution for oral mucous membrane, ephedrine nasal spray, antiseptic oil spray for nose and throat, aseptic and analgesic dusting powder for wounds hay fever ointment, etc. This book present several hundred advanced product formulations for household, industrial and other applications. This book will be invaluable resource to development chemists looking for

leads in the formulation of a wide range of products.

**Selected Formulary Book on Petroleum, Lubricants, Fats, Polishes, Glass, Ceramics, Nitrogenous Fertilizers, Emulsions, Leather and Insecticides**

**Author:** NPCS Board of Consultants & Engineers

**Format:** Hardcover

**Book Code:** NI211

**Pages:** 784

**ISBN:** 9788190568562

**Price:** Rs. 2,275.00 US\$ 200.00

A man entering an industry soon finds that most of the products manufactured by his company are not synthetic or definite chemical compounds, but are mixtures, blends or highly complex compounds of which he knows little or nothing. The literature in this field, if any, may be meager, scattered or antiquated. Formulation is a key process in the overall life cycle so that products are delivered that is of the right quality, at a competitive cost, and is made available within the specified time scale. A formula is an entity constructed using the symbols and formation rules of a given logical language. In science, a specific formula is a concise way of expressing information symbolically as in a mathematical or chemical formula. The chemical formula identifies each constituent element by its chemical symbol and indicates the number of atoms of each element found in each discrete molecule of that compound. If a molecule contains more than one atom of a particular element, this quantity is indicated using a subscript after the chemical symbol and also can be combined by more chemical elements. It is all in the formula, whose implications also remain undiscovered by modern economists. It plays a major role in every process whether it is manufacturing process or preservation. There is a big importance of formula in our life because formulas and equations deal with everyday things like shapes, investments, mixing things, movement, lighting, travel and a host of other things they provide information you can use in planning activities. This book basically deals with the extracting oil from cottonseed, silver nitrate test for cottonseed oil, solid linseed oil, decolorizing or bleaching linseed oil, linseed oil for varnish making, refining linseed oil, mineral oil, leather stuffing grease, leather adhesion grease, liquid belting lubricant, belt adhesion compounds, belt preserving grease, government harness dressing, rubber belt dressing (non static), wire drawing lubricant, wire drawing composition, metal drawing lubricant, cold drawing metal lubricant, drawing compound for aluminum, brass drawing lubricating emulsion, sheet steel drawing lubricant, non seizing threads and gaskets, machine tool lubricant, slushing oil for metal protection horse shoe grease etc. This book is an invaluable resource of the formulae of petroleum, lubricants, fats, polishes, glass, ceramics, nitrogenous fertilizers, emulsions, leather and insecticides. This book present

several hundred advanced product formulations for household, industrial and other applications. The purpose of publishing this book is very useful for chemists, entrepreneurs, existing units, technocrats and engineering students.



## Directory / Database of Corporate/Leading Companies in Indian Petroleum, Petrochemicals and Petro Products (with Financial Figures) 4th Edition

**Format:** CD-Rom

**Book Code:** NID181

**Price:** Rs. 5,192.00 **US\$** 200.00

Offline Business directory is the best thing in today's business world. If you are searching for Buyers, then this Directory/Database is the perfect tool for you. By having the right business leads, you would be able to have immediate communication with prospective businesses, partners and customers through this boundless list of All India Companies in csv excel editable format (easy sorting and filtering). We offer an extensive suite of Directories/ database to assist you in reaching the right and targeted businesses and people quickly and easily. Business, B2B&Irm;, Industrial Directories, Mailing List are used for sales planning, finding Buyers, Sector, Business House and marketing research to perform business analysis. With our company database/Directory, you will have access to company list, Corporate/Leading Companies, Small & Medium Enterprises (SME), you will find a business list consisting of company contact details. We compiled list of companies in excel format to give you access to over hundred thousands of major & minor businesses and companies. From small business to Corporate Houses, our data is complete with business contact information to help you connect with the right companies or buyers. This database collection is a great resource for Buyers and those suppliers who offer their goods and services to Trade, Manufacturing industry, Companies, Corporate Houses & Industries in India. Contains: 195 records with following Information: Name of Company, Address, City, Pin Code, Phone, Fax, Email, Website. Name of Directors, Location of Plants, Project Capacity, Production, List of Major Raw Materials, Name of Products, Turnover, List of Major Raw Materials with their consumption quantity & Raw material value. Comparison amongst companies (Assets, Cash Flow, Cost as % of sales, Forex Transaction, Growth in Assets & Liabilities, Growth in Income & Expenditure, Income & expenditure, Liabilities, Liquidity Ratios, Profitability Ratio, Profits, Return Ratios, Structure of Assets & Liabilities (%), Working Capital & Turnover Ratios) (\*Wherever available) Note: All Records does not contain all fields of information. However, maximum information has been incorporated. Format: MS Excel &emsp;

# Lubricating Oils, Greases and Petroleum Products Manufacturing Handbook

**Author:** NIIR Board of Consultants & Engineers

**Format:** Paperback

**Book Code:** NI314

**Pages:** 376

**ISBN:** 9789381039892

**Price:** Rs. 1,475.00 US\$ 150.00

Lubricating oils are specially formulated oils that reduce friction between moving parts and help maintain mechanical parts. Lubricating oil is a thick fatty oil used to make the parts of a machine move smoothly. The lubricants market is growing due to the growing automotive industry, increased consumer awareness and government regulations regarding lubricants. Lubricants are used in vehicles to reduce friction, which leads to a longer lifespan and reduced wear and tear on the vehicles. The growth of lubricants usage in the automotive industry is mainly due to an increasing demand for heavy duty vehicles and light passenger vehicles, and an increase in the average lifespan of the vehicles. As saving conventional resources and cutting emissions and energy have become central environmental matters, the lubricants are progressively attracting more consumer awareness. Greases are made by using oil (typically mineral oil) and mixing it with thickeners (such as lithium-based soaps). They may also contain additional lubricating particles, such as graphite, molybdenum disulfide, or polytetrafluoroethylene (PTFE, aka Teflon). White grease is made from inedible hog fat and has a low content of free fatty acids. Yellow grease is made from darker parts of the hog and may include parts used to make white grease. Brown grease contains beef and mutton fats as well as hog fats. Synthetic grease may consist of synthetic oils containing standard soaps or may be a mixture of synthetic thickeners, or bases, in petroleum oils. Silicones are greases in which both the base and the oil are synthetic. Asia-Pacific represents the largest and the fastest growing market, with volume sales projected to grow at a CAGR of 5% over the analysis period. Automotive lubricants represents the largest product market, with engine oils generating a major chunk of the revenues. The market for industrial lubricants is supported by the huge demand for industrial engine oils and growing consumption of process oils. The major content of the book are Food and Technical Grade White Oils and Highly Refined Paraffins, Base Oils from Petroleum, Formulation of Automotive Lubricants, Lubricating Grease, Aviation Lubricants, Formulation and Structure of Lubricating Greases, Marine Lubricants, Industrial Lubricants, Refining of Petroleum, Lubricating Oils, Greases and Solid Lubricants, Refinery Products, Crude Distillation and Photographs of Machinery with Suppliers Contact Details. This book will be a mile stone for its readers who are new to this sector, will also find useful for professionals, entrepreneurs,

those studying and researching in this important area.

# About NIIR

**NIIR PROJECT CONSULTANCY SERVICES (NPCS)** is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes various process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

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