Modern Technology of Petroleum, Greases, Lubricants & Petro Chemicals
(2nd Revised Edition)

Description:
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.

Contents:
1. Types of Lubricating Oils
   - Crankcase Oils
   - Gear Oils
   - Metal Working Oils
   - Metal Drawing Oils
   - Spindle and Other Textile Oils
   - Steam Turbine Oils
   - Synthetic Lubricants
   - Miscellaneous Oils
   - Fatty Oils
   - Residual and Petrolatums as Lubricants
   - Asphalt Residual as Lubricants
   - Application of Asphalt Residual as Lubricants
   - Petrolatums as Lubricants
   - Paraffin Wax as Lubricant
   - Resinous Materials as Lubricants
   - Solid Lubricants
Thickeners
Carbohydrates and Proteins as Thickeners
Polymers as Thickening Agents
Acetylene Black as a Thickener
Petroleum Lubricants
Bolt Lubricants
Cryogenic Bearing Lubricants
Lubricants for Missile Systems
Lubrication with Glass

2. Formulations and Compounding of Lubricants

Additives for straight Mineral Oil gear Lubricants
Formulation of Open or Exposed Lubricants
Formulation of mild type E.P. Lubricants
Aircraft Lubricant
Miscellaneous Formulation

3. Raw Materials for Lubricants

Test for good fatty acid
Preformed Soaps
Advantages and the Use of Preformed Soaps
Lubricating Oil
Gravity of Lubricating Oil
Pour Point of Oil
Dyes for Colour
Perfume
Filler
Synthetic Lubricants

4. Equipments for Lubricants Manufacture

Equipments
Handling Packaged Raw Material
Equipment for Saponification
Equipment for Dispersion of Thickening Agents
Manufacture of Lubricating Oils
Milling Equipment

5. Reclamation of used Lubricating Oil

Nature of Contaminants in Used Lubricating Oil
Gravity Methods of Purification
Filteration
Regenerating Process of Used Lube Oil
Contaminants present in Used Lube Oil
Principles of Used Lub Oil
Existing Process for Regeneration of Used Lubricating Oils
Lubricant Recycling
Reprocessing
Reclamation

6. Additives for Lubricants

Antioxidants, Rust & Corrosion Inhibitors
Extreme Pressure Additives Antiwear Agents
Foam Inhibitors
Viscosity Index Improvers
Detergents and Dispersants
Pour Point Depressants
Antiknock Agents
Antiscrackers Agents
7. Characteristics of Lubri

Viscosity Index of Lubricating Oils
Vapour Pressure
Gravity of Lab Oil
Thermal Properties
Electrical Properties
Properties under High Pressure
Surface Properties
Carbon Residue
Colour of Tube Oils
Neutralisation No
Saporifications No of Petroleum Products
Aniline Point of Petroleum Products
Ash content of Petroleum Oils
Precipitation No of Lube Oils

8. Cutting Oils

Metal Forming and Deforming Lubricant
Cutting Oils
Heat Treatment Oils
Industrial Applications
Types of Cutting Oils
E.P. Additives or Antiweld
Future Trend of Cutting Oil
Formulations of cutting oils
Hydrogenation Process in Lube Oil Production
Choice of Catalyst

9. Greases

Solid Lubricants
Semi Solid Lubricants
Solid Lubricants
Gareavs Lubricants
Type of Greases
Calcium Soap
Sodium Soap Greases
Lithium Soap Greases
Aluminium Soap Greases
Mixed Soap Greases
Complex Soap Greases
Non-Soap Greases
Properties of Greases
Grease Applications
Market Position
Fillers
Carbon Black
Asbestos
Mica
Vermiculite
Talc
Various clay or silicate
Metal Powder
Metal Oxide
Manufacturing Process for Grease
Industrial Grease
Manufacturing Process of Greases in General
Fire Hazards in the Manufacture
Processing of aluminium base lubricants and greases
Production of another Barium Base Lubricating Grease
Preparation of Lead Soaps
Preparation of Lead Base Lub Greases

10. Formulation of Greases

Mixed Base Lubricating Greases
Colouring Lubricating Oils
Refinining of Lube Oil
Purification of Lube Oil
Reclaiming Used Lub Oil
Non-Bleeding Grease

11. Lubricants and their Manufacture

Composition of Mineral Oil
Refinining
Blending
Synthetic Hydrocarbons
Synthetic Non-hydrocarbons
Polyalkylene Glycols

12. Various Formulations of Lubricants and Greases

Textile Lubricant for Spinning Jute, etc.
Application of Lead Base Lubricating Greases
Preparation of Lub Grease from Normal Strontium Soap
Mixture Base Strontium Soap Lubricating Greases
Complex Soap Lubricating Greases
Importance of Soap Salt complexes and their characteristics

13. Analysis of Quality Assessment of Lubricating

Greases and Petroleum Products
Lubricating Greases
Analysis
Tests for Melting or Liquefaction

14. Cracking

Thermal Cracking
Coke Removal
Viscosity Breaking
Delayed Coking
Vapour-Phase Cracking
Gas Cracking
Catalytic Cracking
Fixed Bed Catalytic Cracking
Moving Bed Catalytic Cracking Process
Fluid Flow Catalytic Cracking Process
Types of Fluid flow catalysts
Suspensoid Catalytic Cracking
Cycloversion Catalytic Cracking
Reforming
Gas Reversion and Polyforming
Catalytic Reforming
Hydroforming
Fluid Hydroforming
Platforming
Processing of Cracked Gases
Cold Sulphuric Acid Polymerization
Hot Sulphuric Acid Polymerisation
Solid Phosphoric Acid Polymerisation
Low pressure regenerative Process
High Pressure Non-regenerative Chamber Process
High Pressure Non-Regenerative Reactor Process
Hydrogenation
Dehydrogenation
Alkylation
Isomerization

15. Refining of Petroleum Products

Chemical Refining
Physical Refining
Solvent Extraction Processes
Dewaxing
Propane Dewaxing
Benzol-Acetone Dewaxing
Benzol Sulphur Dioxide Dewaxing

16 Manufacture of Asphaltic Bitumen

Steam-Refined Asphaltic Bitumen
Blown Asphaltic Bitumen
Pitch-Type Asphaltic Bitumen

17. Chemicals from Petroleum

Feedstocks
Chemicals from saturated hydrocarbons
Chemicals from Olefins
Oxidation of Olefins
Chlorination of Ethylene
Chlorination of Olefins
Chlorination of Propylene
Chlorination of Butenes
Chlorhydrination of Olefins
Hydrochlorination of Olefins
Sulphonation of Olefins
Oxo Process
Ketones and their derivatives
Aldehydes and their derivatives
Acids and their derivatives
Acetic Acid and Acetic Anhydride
Olefin oxides and their derivatives
Aromatics
Naphthenes and Naphthenic Acids
Carbon Monoxide-hydrogen system
Inorganic Compounds

18. Natural and Cracked Gases

General Properties
Natural Gas
Refinery gas
Liquefied petroleum gas

19. Petroleum Waxes

Nature of the petroleum waxes
Composition of the petroleum waxes
Production of waxes
The properties of petroleum waxes
Paraffin Waxes
Microcrystalline waxes
Solid state transitions in paraffin waxes
The effect of crystallinely modifying agents of the properties of paraffin wax
Utilization of petroleum waxes

20. Bitumen
Emulsions and cutbacks
Rheological Properties
Wetting and adhesive properties
Application
Industrial applications

21. Petroleum Products
L.P.G. (Liquified Petroleum Gas)
Synthesis Gas
Motor Gasoline
Aviation Gasoline
Kerosene
Jet Fuels
Diesel Fuels
Industrial Naphthas
Heating Oils and Residual Fuel Oils
Light, Medium and Heavy Fuel Oils
Petroleum Waxes
Micro Crystalline Wax from slack wax
Petroleum Jelly
Bitumen
Petroleum Coke
Carbon Black

22. ABS Resin
Uses and Applications
Manufacturing Process

23. Acetaldehyde

24. Acetic Acid

25. Acetone

26. Acrylamide Monomer

27. Acrylonitrile

28. Benzaldehyde

29. Adipic Acid

30. Benzene Hexachloride (B.H.C.)

31. Benzoic Acid

32. Benzyl Chloride

33. Bisphenol -A

34. Butadiene

35. Diethyl Toluamide

36. Dimethyl Formamide
37. Ethyl Acetate
38. Ethylene Oxide
39. Formaldehyde
40. Formic Acid
41. Fumaric Acid
42. Iso Propyl Alcohol
43. Methyl Amines
44. Nitrobenzene
45. Phthalic Anhydride
46. Poly Carbonates
47. Polyols
48. Polyurethane Foam
49. Vinyl Chloride

Ordering:

Order Online - http://www.researchandmarkets.com/reports/3216683/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit
http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Modern Technology of Petroleum, Greases, Lubricants & Petro Chemicals (2nd Revised Edition)
Web Address: http://www.researchandmarkets.com/reports/3216683/
Office Code: SCH3CQYA

Product Format
Please select the product format and quantity you require:

Quantity
Electronic (PDF) - Single User:  USD 150

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: Mr □ Mrs □ Dr □ Miss □ Ms □ Prof □
First Name: ___________________________ Last Name: ___________________________
Email Address: * ___________________________
Job Title: ___________________________
Organisation: ___________________________
Address: ___________________________
City: ___________________________
Postal / Zip Code: ___________________________
Country: ___________________________
Phone Number: ___________________________
Fax Number: ___________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card:  
You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check:  
Please post the check, accompanied by this form, to:
Research and Markets,  
Guinness Center,  
Taylors Lane,  
Dublin 8,  
Ireland.

☐ Pay by wire transfer:  
Please transfer funds to:
Account number 833 130 83  
Sort code 98-53-30  
Swift code ULSBIE2D  
IBAN number IE78ULSB98533083313083  
Bank Address Ulster Bank,  
27-35 Main Street,  
Blackrock,  
Co. Dublin,  
Ireland.

If you have a Marketing Code please enter it below:
Marketing Code:

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp