

How to Manufacture Petroleum, Greases, Lubricants & Petro Chemicals

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Information

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.

Table of 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
Filtration
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 Greeses
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

Refinishing 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
Chlorohydrination 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. (Liquefied 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

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