

# **Modern Technology of Soaps, Detergents & Toiletries (with Formulae & Project Profiles) 4th Revised Edition**

**Author:-** P. K. Chattopadhyay

**Format:** paperback

**Code:** NI34

**Pages:** 448

**Price:** Rs.1275US\$ 125

**Publisher:** NIIR PROJECT CONSULTANCY SERVICES

Usually ships within 5 days

There has been consistent rise in Indian toiletries Industry. Novelty in ideas and marketing seems to be the major subject matter of the Indian soap industry. With increasing popularity there has been increase in potential competitors but it still has the opportunity of further exploitation. The soaps, detergent and toiletries product industry is vivacious, varied, creative and tricky, and has the prospective to provide a gratifying career. Since these are basic requirements throughout the world undoubtedly the toiletries industry is one of the fastest growing and most profitable markets in international arena has been for the past many years.

Total quality management has its importance in managing every industry so is its importance and relevance in Oils, Soaps, and Detergents Industries. Featured as one of best seller the book modern technology of soaps, detergent and toiletries is another resourceful book written by P. K. Chattopadhyay. The author is highly experienced consultant to cosmetics and toiletries industries.

The book contains the formulae of diverse types of soaps, detergents (cake, powder and liquid) toiletries, methodical testing method, quality control of complete products, packing criterion of cosmetics and toiletries along with project profiles, machinery photographs and addresses of raw material, plant and machinery suppliers.

The book contains detail chapter on: Principal Groups of Synthetic Detergents Classification, Detergent Bar, Washing Soap: Laundry Soap Formulation, tooth paste, after shave lotion, Hair Shampoo, Fundamentals of Science, Testing of Finished Goods, Finished Product Quality Control Procedures, Natural Essential Oils in India : A Perspective, Essential Oils in India and Trade Summary and Conclusion, etc.

Basic information in entering a market and the opportunities and requirements of the potential sector has been the best way to penetrate in a market. How and what if properly answered can take you to a long way. The first hand information on different types of toiletries product have been properly dealt in the book and can be very useful for those looking for entrepreneurship opportunity in the soap industry.

1. Introduction  
Soap Manufacturing Process  
BIS Specification for Soap  
Properties of Soaps and Detergents

Detergent  
Market Potential of Detergents  
BIS Specification for Detergents  
Toiletries  
BIS Specifications for Toiletries  
    Quality Control  
Branding

## 2. Packaging Criteria for Cosmetics and Toiletries

Evolution of Packaging  
Functional Requirements of Packaging  
Technical  
Aesthetic  
Cost  
Chemical Compatibility  
Physical Compatibility  
Retention of Volatiles  
Leak proof caps  
Tamper-proof Seal  
Transport Hazards  
Aesthetic Factors  
Presentability/Appearance  
Packaging Design  
Package Design - Practicability  
Cost-effectiveness of Pack  
Packaging Materials  
Glass  
Metal  
Plastics  
Paper  
Product Evaluation  
Transit Trials  
Products Characteristics and Packaging Materials  
Legal Requirements  
Closing  
Specification for Polycoated Paper  
Specification of Gum Tape  
Specification of Corrugated Fibreboard Boxes

## 3. Principal Groups of Synthetic Detergents

Classification  
Anionic Detergents  
Alkyl Aryl Sulphonates  
Long-Chain (Fatty) Alcohol Sulphates  
Sulphonated Olefins  
Sulphated Monoglycerides  
Sulphated Ethers  
Sulphosuccinates  
Sulphonated Methyl Esters  
Alkane Sulphates  
Phosphate Esters  
Alkyl Isethionates

- Acyl Sarcosides
- Alkyl Taurides
- Fluorosurfactants
- Cationic Detergents
- Non-ionic Detergents
- Fatty Acid Condensates
- Condensation of Ethylene Oxide with an Amine
- Condensation of Ethylene Oxide with an Amide
- Block Polymers
- Sucrose Esters
- Sorbitan Esters
- Alkylolamides
- Fatty Amine Oxides
- Amphoetrics and Zwitterionics
- Biodegradability

#### 4. Application and Formulae of Detergents

- Foam
- Household Cleaning
- Heavy-Duty Laundering
- Foam Control
- General-Purpose Detergents
- Choice of Non-Ionic
- Concentrated Powders
- Cold Water Washing
- Hard-Surface Cleaners
- Machine Dishwashing
- Abrasive-Type Cleaners
- Miscellaneous Household Cleaners
- Commercial Laundering
- Solvent Detergents
- Carpet and Upholstery Cleaners
- Textile Dressing
- Mercerizing
- Food and Dairy Industries
- Detergent Sanitizers
- Metal Cleaners
- Miscellaneous Cleaners
- Lavatory Cleaner
- Hand Cleaners
- Waterless Hand Cleansers

#### 5. General Discussion of Detergents

- Industrial-Detergents - Applications
- Cosmetic Industry on Path of Progress

#### 6. Detergent Bar

- Formulation
- Sequence of Additions
- Note
- Specification
- Type of Defects
- What are the main defects in bar detergent?

## Detergent Bar Cost Calculations

### 7. Liquid Soap and Detergents

Product Introduction

Method of Manufacture

Liquid Detergents

Weight Equivalents of DDBSA

Molecular Weights

Special Procedures for Compounding

### 8. Washing Soap: Laundry Soap Formulation

Manufacture of Laundry Neat soap from Oil Blend

Harding of RBD

Acid wash for RBHT

Salt Wash for Neem Oil

Blending

Neem Soap Manufacture

Manufacture of Laundry Soap

Theory

Process and Raw Material

Product Profile

Washing Soaps

Brand Name

### 9. Deodorant

Zinc Ricinoleate

Deodorant pump Spray

Name of the Manufacturers

Zinc Ricinoleate

Market Size of Deodorant

Growth Barrier

### 10. Tooth Paste

Introduction

Consumers and Predicted Demand

Production Target and Quality Control

Requirement of Land and Building

Availability of Raw Materials

Machinery and Equipment

Office Equipment

Man Power Required

Raw Materials Per Month

### 11. After Shave Lotion

Introduction

Uses of After shave Lotion

Market Position

Advertising

Distribution

Formulations with Process

Process

Note

Process

Plant Economics  
Land and Building  
Plant and Machinery  
Raw Material (Annual)  
Utilities and Overheads (Annual)  
Personnel Requirement (Annual)

## 12. Hair Shampoo

Introduction  
Properties  
Uses and Application  
Raw Materials for Shampoos  
The Nonionic Detergent Raw Materials  
Amphoteric Products  
Perfumes  
Preservatives  
New Shampoo Development  
Protein and Egg Shampoo  
Herbal Shampoo  
Vitamin Shampoos  
Antidandruff Shampoos  
Market Survey  
Present Manufacturers  
Formulae  
Coconut oil Shampoo  
Triethanolamine Shampoo  
Liquid Cream Shampoos  
Liquid Cream Shampoo  
Procedure  
Manufacturing Process

## 13. Antiseptic and Germicidal Liquid Soap

Hexachlorophene Soaps  
Control of Clarity  
Filtration  
Bottling and Packaging

## 14. Fundamentals of Science

Weight  
Measurements  
Volume  
Units  
Measurement  
Examples  
Density and Specific Gravity  
Temperature  
Dilution  
Pressure and Vacuum  
Surface Tension  
Viscosity  
Flow  
Acid, Bases and Neutral Solution  
Normal Solutions and Normality

Unloading of Oleum tanker  
Process Familiarisation  
Raw Materials Characteristics and Storage  
Hydrocarbon  
Caustic Soda  
Other Process Chemicals and Ingredients  
Bleach liquor

#### 15. Raw Material Specification

Oils/Fatty Material  
Chemicals

#### 16. Testing of Finished Goods

Report for the Central Laboratory (Test of Oil)  
Determination of Moisture  
Determination F. F. A.  
Determination of Iodine value  
Colour  
Specification Value  
Unsap Value  
Mineral Oil  
Caster oil test  
Bleaching of oil  
Wesson loss  
Test for HCN

#### 17. Finished Product Quality Control Procedures

Oven Volatilise  
Scope  
Apparatus  
Procedure  
Calculation  
Determination of Total Fatty Matter  
Procedure  
Alcohol Insoluble matter  
Detergent Powder  
NSD Manufacture in Brief  
Powder  
Sulphonation  
Neutralisation and Bleaching  
Slurry Preparation  
Blowing of Slurry  
Filling and Packing  
NSD-Bar  
Mixer  
Noodler and Mill  
Plodder  
Billeting  
Weathering

#### 18. Analytical Testing Methods

Aluminium Sulphate

Determination of pH  
Determination of Iron  
Determination of Aluminium  
Purity of Calcite  
Moisture Content - Calcite  
Matter Soluble in Water  
Determination of Alumina  
Iron As  $\text{Fe}_2\text{O}_3$  (Total and Free)  
Loss on Drying  
Determination of Silica  
China Clay - Paste with Glycerine  
Loss on Ignition  
Matter Soluble in Water  
Matter Soluble in Acid  
Water Absorption Value  
Determination of Calcium and Magnesium In Dolomite  
Moisture Content  
Matter Insoluble in Acid  
Bulk Density of Dolomite  
Determination of Available Lime (as Cao)  
Solubility of Liquid Paraffin  
Reaction of Liquid Paraffin  
Readily Carbonisable Substances in Liquid Paraffin  
Sulphur Compounds in Liquid Paraffin  
Reaction to Acid and Alkali  
Solubility in Water  
Colour Value  
Determination of Matter Insoluble in Water  
Volatile Matter Content  
Total Alkalinity as  $\text{Na}_2\text{CO}_3$   
Determination of Chlorides  
Determination of Sulphates  
Iron Content  
Determination of Iron (as Fe)  
Total Soluble Silicates and  $\text{Na}_2\text{O} : \text{SiO}_2$  Ratio  
Moisture  
Temperature Rise Test  
Phosphorus Content  
Determination of Tripolyphosphate Content ( $\text{Na}_5\text{P}_3\text{O}_{10}$ )  
Active Detergent Content of Detergent Paste  
Total Anionic Detergent: Hyamine titration  
Moisture and Volatile Matter of Detergent paste  
Colour of Detergent Paste  
Available Chlorine  
Non-Detergent Organic Matter

## 19. Natural Essential Oils in India : A Perspective

Introduction

Essential Oils in India and Trade

Summary and Conclusion

Plant Economics

## 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.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

---

**NIIR PROJECT CONSULTANCY SERVICES**, 106-E, Kamla Nagar, New Delhi-110007, India.  
**Email:** [npcs.india@gmail.com](mailto:npcs.india@gmail.com) **Website:** [NIIR.org](http://NIIR.org)

Mon, 11 Aug 2025 22:51:55 +0000