Entrepreneur India

106-E, Kamla Nagar, New Delhi-110007, India.
Tel: 91-11-23843955, +91 9097075054
Mobile: +91-9097075054
Email: npcs.ei@gmail.com, info@entrepreneurindia.co
Website: www.entrepreneurIndia.co

Soaps, Detergents and Disinfectants Technology Handbook (3rd Revised Edition)

Code	NI198
Format	paperback
Indian Price	₹1595
US Price	$150
Pages	472
ISBN	9788194737964
Publisher	NIIR PROJECT CONSULTANCY SERVICES

Description

Soaps, Detergents and Disinfectants Technology Handbook (3rd Revised Edition) (Washing Soap, Laundry Soap, Handmade Soap, Detergent Soap, Liquid Soap , Hand Wash, Liquid Detergent, Detergent Powder , Bar, Phenyl, Floor Cleaner, Toilet Cleaner, Mosquito Coils, Naphthalene Balls, Air Freshener, Hand Sanitizer and Aerosols Insecticide)

Soaps are cleaning agents that are usually made by reacting alkali (e.g., sodium hydroxide) with naturally occurring fat or fatty acids. A soap is a salt of a compound known as a fatty acid. A soap molecule consists of a long hydrocarbon chain (composed of carbons and hydrogens) with a carboxylic acid group on one end which is ionic bonded to a metalion, usually a sodium or potassium. The hydrocarbon end is nonpolar and is soluble in nonpolar substances (such as fats and oils), and the ionic end (the salt of a carboxylic acid) is soluble in water. Soap is made by combining tallow (or other hard animal fat) or vegetable or fish oil with an alkaline solution. The two most important alkalis in use are caustic soda and caustic potash.
A detergent is an effective cleaning product because it contains one or more surfactants. Because of their chemical makeup, the surfactants used in detergents can be engineered to perform well under a variety of conditions. Such surfactants are less sensitive than soap to the hardness minerals in water and most will not form a film.
Disinfectants are chemical agents applied to non-living objects in order to destroy bacteria, viruses, fungi, mold or mildews living on the objects. Disinfectants are chemical substances used to destroy viruses and microbes (germs), such as bacteria and fungi, as opposed to an antiseptic which can prevent the growth and reproduction of various microorganisms, but does not destroy them. The ideal disinfectant would offer complete sterilization, without harming other forms of life, be inexpensive, and non-corrosive.
The global soap and detergent market is expected to reach USD 207.56 billion by 2025. The industrial soaps & detergents are extensively used by the commercial laundries, hotels, restaurants, and healthcare providers. Increasing demand from healthcare and food industries will continue to drive the market. Aerosol and liquid products are the common disinfectants used in hospitals, although growing number of healthcare facilities are implementing ultraviolet disinfection systems as further measure. Increasing demand for disinfectants from water treatment and healthcare industries is fuelling growth of the global disinfectants market.
The major contents of the book are Liquid Soaps and Hand Wash, Liquid Soap and Detergents, Washing Soap: Laundry Soap Formulation, Antiseptic and Germicidal Liquid Soap, Manufacturing Process And Formulations Of Various Soaps, Handmade Soap, Detergent Soap, Liquid Detergent, Detergent Powder, Application and Formulae Of Detergents, Detergent Bar, Detergents Of Various Types, Formulating Liquid Detergents, Phenyl, Floor Cleaner, Toilet Cleaner, Mosquito Coils, Naphthalene Balls,

Air Freshener (Odonil Type), Liquid Hand Wash and Soaps, Hand Sanitizer, Aerosols–Water and Oil Based Insecticide (Flies, Mosquitoes Insect and Cockroach Killer Spray), Ecomark Criteria for Soaps & Detergents, Plant Layout, Process Flow Chart and Diagram, Raw Material Suppliers List and Photographs of Machinery with Supplier's 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.

Content

Step 7: Packing
Theory
Process and Raw Material
Product Profile
Washing Soaps
Brand Name
Process

5. ANTISEPTIC AND GERMICIDAL LIQUID SOAP
Hexachlorophene Soaps
Control of Clarity
Filtration
Bottling and Packaging

6. MANUFACTURING PROCESS AND FORMULATIONS OF VARIOUS SOAPS
(A) Washing Soaps
1. Washing Soap with Soap Stone (by Cold Process)
Process
2. Washing Soap with Soda Silicate (by Cold Process)
Process
3. Washing Soap
Process
4. Sunlight Type Washing Soap
Process
5. Sunlight Type Washing Soap (Other Formula)
Process
6. Washing Soap Made of Groundnut Oil Residue
Process
7. Washing Soap (from Linseed Oil)
Process
8. Washing Soap (made of Cottonseed Oil)
Process
Nerol Shop
Process of Manufacturing
9. Other Selected Formulas of Washing Soaps
Process
(B) Nerol Washing Soap
Process of Manufacturing
(C) Toilet Soaps
Selected Formulas for Toilet Soaps

For Toilet Soap Perfumes
(D) Carbolic Soaps
Process
2. +-Lifeboy Type Soap
Process
3. Transparent Soap (Pears Types)
Process
Transparent Soap (Another Formula)
Process
(E) Shaving Soaps
Process
Process
(F) Special Soaps
1. Borax Soap (For Pimples)
Process
2. Borax Soft Soap
Process
3. Soft Soap (Other Formula)
Process
4. Rug Cleaning Soap
Process
5. Dry-Cleaning Soap (Liquid)
Process
6. Soap used in the Bleaching of Jute
Process
7. Built Soaps for Cottons and Linens
Process
8. Sandle Soap
Process
(G) Vaseline Soap
Process
(H) Liquid Soap
Process
(I) Girt Soaps
Process
2. Hand Soap Paste with Mineral Abrasive
Process
3. Powdered Hand Soap with Vegetable Abrasive and Lanolin
Process
(J) Depilatory Soaps
Process

(K) Metallic Soaps in protective coating industry
Metals
Method of Precipitation
(L) Liquid Dental Soap
(M) Medicated Soap
Neem Soap
Formulation

7. HANDMADE SOAP
Properties
Benefits of Handmade Soap
Types of Handmade Soap
Cold Process Soap
Hot Process Soap
Liquid Soap
Transparent Soap
Glycerin Soap
Ready-Made Soap Bases
Basic Ingredients in Handmade Soap
Tools and Equipments
Temperature Chart
Handmade Soap Formulae
Lavender Soap
Sweet Almond Oil Soap
Seagrass Soap
Cocoa and Shea Butter Soap
Column Swirl Soap
Spoon Swirl Handmade Soap
Cocoa Butter Soap
Coffee Soap
Creamy Coconut Milk Soap
Rose Milk Soap
Sweet Citrus Honey
White Camellia Oil Soap
Basic Soap-Making Processes
Cold Process
Hot Processes
Moulds
Purification and Finishing

8. DETERGENT SOAP

Spray- dried Household Low-foaming Laundry Powders
Formulae 15, 16, 17, 18
Heavy-duty Liquid Detergents
Formula 19
Heavy-duty Liquid Detergent with ‘Controlled Foam’
Formula 20
Heavy-duty Liquid Detergent and Bleach
Formula 21
Light-duty Household Liquid Detergent
Formula 22
Lotion-type Light-duty Liquid Detergent
Formulae 23-27
Light-duty Liquid Detergents
Formula 28
Household Fine-wash Spray-dried Powder
Formula 29
40 per cent Detergent Paste
Formula 30
Spray-dried General-purpose Powder
Formula 31
General-purpose Powder
Formula 32
General-purpose Powder
Choice of Non-Ionic
Concentrated Powders
Mix Together
Cold Water Washing
Hard-Surface Cleaners
Formula 33
Hard-surface Cleaner
Formula 34
Hard-surface Cleaner
Formula 35
Aerosol Oven Cleaner
Machine Dishwashing
Formula 36
Machine Dish-washing Powder for Soft-water Areas
Formula 37
Machine Dish-washing Powder for Moderately Hard-water Areas
Formula 38
Machine Dish-washing Powder for Hard-Water Areas

Abrasive-Type Cleaners
Formula 39
Household Scouring Powder
Formula 40
Formula 41
Household Scouring Liquid
Miscellaneous Household Cleaners
Formula 42
Household Window-cleaning Liquid
Formula 43
Floor Cleaner
Commercial Laundering
Formula 44
Spray-dried Industrial Laundry Powder
Formula 45
Industrial Laundry Powder not Spray-dried
Solvent Detergents
Formula 46
Detergent-solvent Combination
Formula 47
Detergent-solvent Combination
Formula 48
Kerosene Water Solution
Formula 49
Solvent detergent Combination
Formula 50
Solvent-detergents based on 100 per cent ABS (So3 produced)
Formula 51
Dry-cleaning Detergent
Carpet and Upholstery Cleaners
Textile Dressing
Formula 52
Textile Scouring Paste
Formula 53
Textile Degumming Detergent Paste
Mercerizing
Food and Dairy Industries
Formulae 54-56
Food and Dairy Alkaline Detergent Cleaner
Formula 57
Bottle-washing Compound

Detergent Sanitizers
Formula 58 and Formula 59
Metal Cleaners
Formula 60
Acid Cleaner for Water-cooling Systems
Miscellaneous Cleaners
Lavatory Cleaner
Hand Cleaners
Formula 75
Hand Cleanser
Formula 76
Detergent Hand Cleanser
Formula 77
Hand Cleanser in Powder Form
Waterless Hand Cleansers
Formula 78
Waterless Hand Cleanser
Formula 79
Waterless Hand Cleanser
Formula 80
Waterless Hand Cleanser

13. DETERGENT BAR
Formulation
Sequence of Additions
Type of Defects
Manufacturing Process of Detergent Bar

14. DETERGENTS OF VARIOUS TYPES
(A) Detergent Powder
Method
Other Formulaes
Process
List of Plant and Machinery
Raw Materials Used per day
Dairy Equipment Cleaners
Bottle Cleaners
Preparation of Caustic Gluconate Solution
Dairy Equipment Cleaners
Dish Washing Detergents
(a) For China Dishes by Soft Water

(b) In Soft as well as Moderately Hard Water
(c) For China Dishes by Hard Water
(d) For Plasticware/Chinaware
Other Dish-Washing Compounds (Vim Type Cleaning-Powder)
1. For Aluminium Ware
2. For Glass, China and Siverware
3. Washing Powder (For Cottons)
4. Washing compounds (For Woollens)
5. Washing Compound (For Wool)
6. Rug Cleaners
7. Floor Cleaners (Building Surface)
8. Wall Cleaner
9. Floor Cleaner (Light Duty Powder)
10. Heavy Duty Cleaner
11. Various Head Cleaning Compounds
12. Cleaner for Artificial Teak
13. Stoneware Glaze
14. Paint Brush Cleaner
15. Auto Polish
Process
Direction for Use
Process
Direction for Use
Process
Direction for Use
Scouring Powders
Floor Cleaners
1. Common Wall Cleaner
2. Light Duty Cleaner (Powder)
3. Heavy Duty Cleaner
4. Cleaner for Building Surface
Sanitary Cleaner
List of Plants and Machinery
Raw Material
Metal cleaners
Aluminium Cleaner
Steel Cleaner
Cleaner for Iron Applied Prior to Galvanishing
Liquid Pine Scrub Soap for General Floor Scrubbing
Wax Removing Cleaner (Liquid)
Sweeping Compound (Oil Base)

Painted Surface Cleaner (Powder)
(B) Liquid Detergents
All Purpose Liquid Cleaners
Dish Washing Liquid Detergents
Formulations for Mechanical Dishwasher
Hand Washing Liquid Detergent
Miscellaneous Cleaners
Textile Scouring Paste
Degumming Paste for Wool
Liquid Cleaners for Hard Surface
Window Panes Cleaning Liquid
Dry Cleaning Detergent
Process
(C) Detergent (Nirma Type)
Formulations for the Nirma Type Detergent Powder
List of Plant and Machinery
Raw Materials Required/Month
(D) Detergent Cake
Manufacturing Process for Detergent Cake Basis 1 TPD
1. Sulfonation of Alkyl Benzene
2. Separation Step
3. Neutralization Stop
4. Mixing of Ingredients
5. Concentration of Slurry
6. Making of Cake
7. Packing
8. Despatching
List of Plant and Machinery
Raw Materials Required per day

15. FORMULATING LIQUID DETERGENTS
Requisites of Surfactants for Formulating Liquid Detergents
Surfactants Most Commonly Used
Builders
Viscosity Controllers
Other Ingredients
Household Liquid Detergents For Laundering
Heavy Duty
Typical Formulations
Process
Light Duty : (for Silk, Wool etc.)

Shampoos
Rug Cleaning Liquid Detergent Formulations
A Recommended Formulation
16. PHENYL
Uses
Properties
Manufacturing Process

17. FLOOR CLEANER
Composition of Floor Cleaner
Uses of Floor Cleaner
Raw Material Required for Floor Cleaner
Manufacturing Process of Floor Cleaner
Process Flow Diagram of Floor Cleaner

18. TOILET CLEANER
Properties
Features
Formulations of Toilet Cleaner
Manufacturing Process of Toilet Cleaner
Process Flow Diagram of Toilet Cleaner

19. MOSQUITO COILS
Uses and Application
Properties
Basic Raw Material
Manufacturing Process
Process Flow Diagram

20. NAPHTHALENE BALLS
Uses & Application
Properties
Manufacturing Process
Process Flow Diagram

21. AIR FRESHENER (ODONIL TYPE)
Properties
Uses and Applications
Formulation for Preparing Odonil Type Solid Deodorant Cake
Manufacturing Process
Process Flow Diagram

22. LIQUID HAND WASH AND SOAPS
Method of Manufacture
Raw Material Required

23. HAND SANITIZER
Physical and Chemical Properties
Ingredients
Uses
Formulation of Herbal Hand Sanitizer
Manufacturing Process

24. AEROSOLS–WATER AND OIL BASED
INSECTICIDE (Flies, Mosquitoes Insect and Cockroach Killer Spray)
Aerosol Container
Formulation of Insecticide Aerosols
Oil-Based Aerosol (OBA)
Water-Based Aerosols (WBA)
Alcohol-Based Aerosol
Filling Process of Oil-based Insecticide Aerosols (U-t-C)
The Production Process of Oil-Based Insecticide Aerosol
The Preparation of Concentrate
The Preparation of Diluent Solution
Filtration
Filling Process of Water-Based Insecticide Aerosols (T-t-V method)
Filling Process of Water-Based Insecticide Aerosols (U-t-C)
Instruction of Process
A. Procedures of Water-Based Aerosols
B. Procedures of Oil-Based Aerosols
C. Aerosol Production Line
Water-Based Aerosol Insecticide Formulation
The Biological Efficacy of Typical Formulation
FE Insecticide Aerosols
A. Features
B. Composition and the Physical Feature
C. Comparison of Efficacy to Insects Between FE and Other Knock Down Agent
Insecticide Aerosols for Special Uses

25. ECOMARK CRITERIA FOR SOAPS &
DETERGENTS
A. Toilet Soaps
1. General Requirements

2. Product Specific Requirements
B. Detergents
1. General Requirements
2. Product Specific Requirements
3. General Requirements

26. PLANT LAYOUT

27. PROCESS FLOW CHART AND DIAGRAM

28. RAW MATERIAL SUPPLIERS LIST

29. PHOTOGRAPHS OF MACHINERY WITH SUPPLIER’S CONTACT DETAILS 378
Liquid Soap Making Machine
Three Roll Mill
Blender
Heat Exchanger
Plodder
Centrifuge
Flash Tank
Water Strainer
Cyclone Separator
Vaccum Pump
Hammer Mill
Jacketed Kettle
Condenser
Storage Tank
Steam Heater
Agitator
Soap Packing Machine
Transfer Pump
Hopper
Spray Dryer
Pulverizer Machine
Washing Powder Making Machinery
Bath Soap Making Machine
Soaps Wrapping Machine
Detergent Cake Making MAchine
Manual Soap Cutter
Soap Extruders
Soap Mixer

Soap Presses
Soap Crutcher
Soap Flaker
Detergent Making Machine
Hand Wash Liquid Soap Making Machine
Ribbon Blender
Cage Mill
Automatic Production Line for High Laundry Detergent Filling and Capping
Soap Finishing Line
Canned Fresh Air Filling Machine Assembly Line 2800E
Air Filling Machine 1600D1
Aerosol Filling Machines Automatic Single Platform 2800A
Aerosol Filling Machines
Aerosol Contract Filling Machine
Aerosol Filling Plant
Aerosol Filling Equipment With 5 in 1 Function 1600C
Toilet Soap Line
Laundry Soap Making Process Chart
Soap Production Line Machine
Soap Production Line Plant
Soap Making Line Machinery Soap Production Line

About Niir

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.