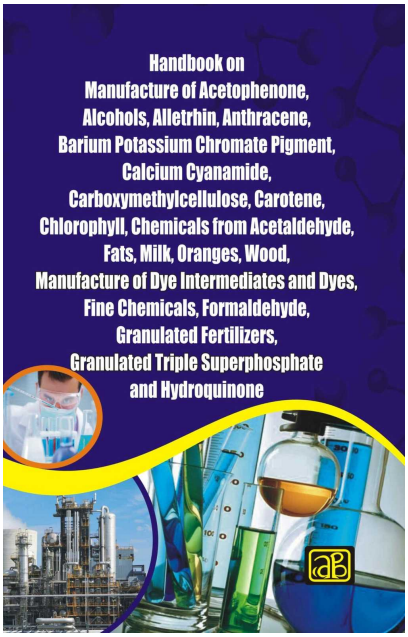
Entrepreneur India

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



Handbook on Manufacture of Acetophenone, Alcohols, Alletrhin, Anthracene, Barium Potassium Chromate Pigment, Calcium Cyanamide, Carboxymethylcellulose, Carotene, Chlorophyll, Chemicals from Acetaldehyde, Fats, Milk, Oranges, Wood,.....

Code	NI309
Format	paperback

Indian Price	₹1100
US Price	$125
Pages	550
ISBN	9788178331782
Publisher	Asia Pacific Business Press Inc.

Description

Handbook on Manufacture of Acetophenone, Alcohols, Alletrhin, Anthracene, Barium Potassium Chromate Pigment, Calcium Cyanamide, Carboxymethylcellulose, Carotene, Chlorophyll, Chemicals from Acetaldehyde, Fats, Milk, Oranges, Wood, Manufacture of Dye Intermediates and Dyes, Fine Chemicals, Formaldehyde, Granulated Fertilizers, Granulated Triple Superphosphate and Hydroquinone
(Also Known As Modern Technology of Industrial Chemicals)

Industrial chemicals are essential components of modern societies because they contribute in numerous ways to establish and/or preserve an elevated standard of living in countries at all stages of development. Chemicals play an important part in different fields such as healthcare, food production and telecommunications. Under certain conditions, the large scale production and use of certain chemicals may result in the degradation of our environment and adverse impact to human health and wildlife.
Acetophenone is the simplest aromatic ketone organic compound and it has a sweet taste and smell that resembles that of oranges. It is used for various purposes in the industry. Acetophenone is a colorless liquid with a sweet pungent taste. Alcohols are one of the most important molecules in organic chemistry. They can be prepared from many different types of compounds, and they can be converted into many different types of compounds. The allethrins are a pair of related synthetic compounds used in insecticides. They are synthetic pyrethroids, a synthetic form of a chemical found naturally in the chrysanthemum flower. Acetaldehyde is a key raw material in the production of a wide range of chemical products such as paint binders in alkyd paints and as a plasticizer for plastics. Acetaldehyde is also used a base in the manufacture of acetic acid, another platform chemical with many applications. Acetaldehyde is also used as an aromatic agent and is found naturally in fruits and fruit juices.
Formaldehyde, also known as methanal, is a colorless and flammable gas that has a pungent smell and is soluble in water. Formaldehyde is used in Circuit Board Manufacture, Laboratory Chemicals, Paper Coatings, Photochemicals, Printed Circuit Board Manufacturing and Rubber Manufacture. Hydroquinone is a Melanin Synthesis

Inhibitor. Hydroquinone is mainly used in photosensitive materials, rubber, dyes, pharmaceutical industry.
The Indian chemical industry is an integral component of Indian economy, contributing around 6.7 per cent of the Indian GDP. With Asia’s growing contribution to the global chemical industry, India emerges as one of the focus destinations for chemical companies worldwide.
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

1. Acetophenone
Compound Is Used Extensively In The Preparation
Of Perfumes
Three Parts Of Molecule May Be Involved In
Chemical Reactions
Carbide's Acetophenone Is Intermediate In
Continuous Styrene Process
Oxidation Step Yields Mixture Of Acetophenone
And Phenylmethylcarbinol
Caustic Neutralizes About 98% Of Acid Formed During
Oxidation
Ethylbenzene Is Recycled; Acetophenone And Phenylmethylcarbinol Mixture Is Refined
Purification Includes Dehydrogenation And Further
Distillation
Freezing Point Determinations Are Important In Process
Control
Adequate Provision Are Made To Ensure Safety Of
Workers

2. Alcohols By Sodium Reduction
High Pressure Process
Sodium Reduction Process
Description Of Process
Chemical Control
Instrumentation And Control
Safety Provisions
Hot Oil-Circulating System

Materials Of Construction

3. Alletrhin

Efforts Made To Develop Synthetic Insecticide Having Same Desirable Properties In Pyrethrum
Allethrin, An Oily Liquid, Consists Of A Mixture Of Eight Optically Active Isomers
First Series Of Chemical Reactions Involves Synthesis Of Allethrolone
Atmospheric Distillation Employed In Purification Of Crude Allyl Acetone
Ethyl-3-Oxo-6-Heptenoate Is Saponified At Room Temperature With Potassium Hydroxide
Vacuum Operation Minimizes The Thermal Breakdown Of Allethrolone
Preparation Of Chrysanthemum Acid Chloride Is Second Major Phase Of Allethrin Synthesis
Nickel Catalyst Aids Hydrogenation Of The 2,5-Dimethylhexyne-2,5-Diol
Ethyl Glycine Hydrochloride Is An Intermediate In The Preparation Of The Ethyl Diazoacetate
Aqueous Phase Extraction With Ether Recovers Ethyl Diazoacetate
Distillation Of Ethyl Chrysanthemumate Is Carried Out At 10-Mm Pressure
Reaction Of Chrysanthemum Acid Chloride And Allethrolone Produces The Final Product
Either One Of Two Standard Methods May Be Used In Analysis Of Allethrin
Future Market For Allethrin Depends
On Developmental Programs Now In
Progress

4. Amyl Compounds From Pentane
Sharples History
Fundamental Chemistry
Production Of Amyl Compounds
Corrosion
Safety
Control
Economics
Future Prospects

5. Anthracene
Introduction
Properties
Uses And Applications
Industrial Prospects

Process Of Manufacture
Apparatus
Thermometer
Procedure

6. Barium Potassium Chromate Pigment
Manufacturing Procedure
Proposed Production Plant
Field Performance
Future Of Chromate Pigments

7. Calcium Cyanamide
History Of Calcium Cyanamide Process
Chemistry Of Calcium Cyanamide
Coke
Lime
Fluorspar
Briquetting
Calcium Carbide Production
Calcium Cyanamide Production
Calcium Cyanamide Milling
Auxiliary Equipment
Chemical Control
Safety Precautions
Present Markets
Future

8. Calcium Magnesium Aconitate
Srrl Pioneered Initial Laboratory Studies
Usda Operated First Pilot Plant At New Orleans
Godchaux Plant Processes B Molasses And Blackstrap Molasses
Aconitate Precipitation Includes Dilution, Liming And Crystallization
Solids Separation Is Key Step Of Process
Aconitate Is Dried By Gas Heated Conveyor Belts
There Are Still Unknown Factors In Aconitate Production
Potential Raw Material Supplies Are Practically Unlimited

9. Carboxymethylcellulose
Cmc Is Valuable As Thickener, Stabilizer, And Detergency Improver
Solubility Of Cmc Depends On Degree Of Substitution Of Hydroxyl Units

Dry Sodium Monochloroacetate React With Alkali Cellulose In German Batch Process
Continuous Process Uses Monochloroacetic Acid
Other Producers Manufacture Special-Purpose Cmc
Wyandottee Produces Technical Grade Cmc From Bleached Solfite Pulp
Processing Is Continuous In A Three-Zone Rotary Reactor
Pneumatic Atomizers Disperse Monochloro-Acetic Acid In Reactor
Complete Reaction Requires About 3 Hours
Flash Drying Yields Desirable Products
Performance Tests Check Product Quality
Versatility Of Cmc Assures Its Future

10. Carotene And Chlorophyll: Commercial Chromatographic Production
Preparation
Adsorption
Finishing
Production
Future Prospects

11. Chemical Explosives & Rocket Propellants
Introduction
Definition
Chemistry Of Combustion
Fig 1. The Fire Safety Triangle
Historical Development
Classification Of Explosives
Explosives Manufacturing
Tnt (2,4,6-Trinitrotoluene)
Rdx And Hmx
Hns (2,2'4,4',6,6'-Hexanitrostilbene)
Tatb (1,3,5-Triamino-2,4,6-Trinitrobenzene)
Ddnp (2-Diazo-4,6-Dinitrophenol)
Petn (Pentaerythritol Tetranitrate)
Ng (Nitroglycerin Or Glyercol Trinitrate)
Dynamite
Slurry And Emulsion Explosives
Rocket Propellants
Principles Of Rocket Propulsion
Types Of Propellants
Solid Propellants
Single And Double-Base Propellants
Composite Propellants

Propellant Use Criteria
Composite Propellant Manufacture
Liquid Propellants
Physical Properties
Liquid Oxidizers
Liquid Fuels
Monopropellants
Gelled Propellants

12. Chemicals From Acetaldehyde
Steps In Development Of Acetaldehyde Process
The Hoechst Plant
Outlook
Acetaldehyde To Acetic Acid
Acetic Acid Process
Acetaldehyde To Ethyl Acetate
Butyl Acetate
Methoxybutylacetate

13. Chemicals From Fats
Chemical Nature Of Fats And Fatty Acids
Chemistry Of Fat And Fatty Acid Processing
Developments By Armour
Processing Of Fatty Acids
Auxiliary Installations
Chemical Control
Products And Their Uses

14. Chemicals From Milk
Raw Material
Processing
Casein
Milk Protein Powder
Caseinates
Whey Proteins
Milk Sugar
Casein Hydrolyzates
Tyrosin Production
Packaging
Materials Of Construction

15. Chemicals From Oranges

Juice Products Require Top Grade Fruit
Three Types Of Extractors Remove The Juice
Frozen Concentrate Represents An Increasing Outlet For Orange Growers
Oil-Bearing Liquors Pressed From Orange Peel Yield Orange Oil
Meal And Molasses Are Produced From Peel Not Used In Pectin Production After Oil Extraction
Several Types Of Pectin May Be Hydrolyzed From Orange Peel 306
Citrus Peel Is Source Of Bioflavonoids Or "Vitamin P" Material 308
Proper Design Of Processing Plant And Equipment Limits Juice Spoilage And Product Contamination
Plant Waste Waters Operate Disposal Farm
Seasonal Nature Of Operations Is Important Factor In Citrus Processing

16. Chemicals From Wood

History Of Marathon Process
Chemistry Of Marathon's Lignosulfonates
Spent Liquor From 50,000 Tons Of Pulp
Fate Of Calcium Lignosulfonate (Organic Precipitate)
Vanillin Process Effluent
Vanillin Effluent A
Vanillin Effluent B
Salts Of Organic Acids
Operating Technology

17. Chloroquine Manufacture

Process Development
Plant Process
Product Handling
Control

18. Dye Application, Manufacture Of Dye Intermediates & Dye

Introduction
Textile Fibers
Natural Fibers
Regenerated Fibers
Synthetic Fibres
Dye Classification
Acid Dyes

Basic Or Cationic Dyes
Direct Dyes
Disperse Dyes
Reactive Dyes
Sulfur Dyes
Vat Dyes
Combinations
The Application Of Dyes
Fiber Preparation
Dye-Bath Preparation
Finishing
Dyeing Methods/Batch
Printing
Pigment Dyeing And Printing
Nontextile Uses Of Dyes
Dye Intermediates
Nitration
Reduction
The Manufacture Of Dyes
Nitro Dyes
Azo Dyes
Manufacturing Processes For Azo Dyes
Triphenylmethane Dyes
Xanthene Dyes
Anthraquinone And Related Dyes
Sulfur Dyes
Phthalocyanines
New Development In Dyes

19. Fine Chemicals From Coal
Chattanooga Plant Of Tennessee Products And Chemical Corporation
Benzoic Acid And Sodium Benzoate
Benzene Hexachloride
Toluene-Acid Recovery System
Utilities And Instrumentation
Future Prospects

20. Formaldehyde From Methanol
Manufacturing Processes
Commercial Processes Using Methanol

Other Processes
Methanol
Air Supply
Reaction
Catalyst
Absorption
Distillation
Start-Up
Instrumentation
Analytical Control

21. Granulated Fertilizers By Continuous Ammoniation
Chemistry Enters The Field
From Batch To Continuous Operation
Many Variables Affect Granulation
The Ball Starts Rolling
Gravimetric Feeders Control Solids
Ammoniation And Granulation In One Step
Design Changes Have Been Recommended
Technology Is Changing

22. Granulated Triple Superphosphate
Large Deposits Of Phosphate Rock In Florida
Chemistry Of The Process
Phosphoric Acid And Rock React
Waste Disposal
Phosphate Rock Reacts With Sulfuric Acid.
Utilities
Fume And Dust Control
Analytical And Quality Control
Maintenance And Repair
Materials And Labor Required
Typical Analyses Of Rock
Typical Product Analyses
Corrosion

23.Hydroquinone Manufacture
Preparation Of Quinone
Quinone Separation
Reduction To Hydroquinone

Purification Of Hydroquinone
Safety Precautions
Laboratory Tests
Uses Of Hydroquinone
Hydroquinone Derivatives And The Future

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.