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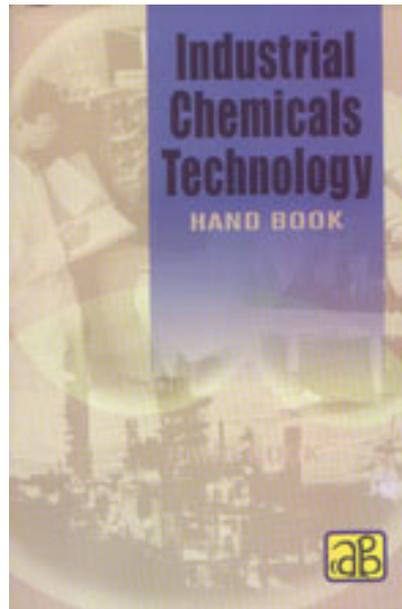
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Industrial Chemicals Technology Hand Book

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Description

Growth in demand for chemicals in developing countries is high leading to substantial cross border investment in the chemical sector. The chemical industry comprises the

companies that produce industrial chemicals. Chemicals are used to make a wide variety of consumer goods, as well as thousands inputs to manufacturing, construction, and service industries. The applications of industrial chemical are in various fields like in organic chemicals, paint, varnishes, resins, petroleum, pigments, printing inks, acrylics polyesters engineering thermoplastics. The chemical industry itself consumes 26 percent of its own output. In modern age chemical industries have permeated most extensively in comparison with other industries and are progressing at a very rapid pace. Chemical industry is one of the oldest industries in India. It not only plays a crucial role in meeting the daily needs of the common man, but also contributes significantly towards industrial and economic growth of the nation. The chemical industry forms the backbone of the industrial and agricultural development and provides building blocks for downstream industries; it is an important constituent of the Indian economy. The chemical industry in India which generates almost 13% of total national export is growing annually at a growth rate anywhere between 10% and 12%. Global chemical production is growing and the growth is contributed by the chemical industry of developing countries.

The book contains manufacturing processes, reactions, equipments details, process flow diagram of number of chemicals, which have huge industrial uses. The major contents of the book are iodine from oil well brines, lactic acid from corn sugar, modern production of chlorine and caustic soda, organic chemicals, chemicals derived from methane and so on.

This book is very useful for new entrepreneurs, industrialists, consultants, research scholars, technical institutions, chemists and libraries. This book is recommended to all related to field of chemical process technology.

Content

1. Iodine From Oil Well Brines

Brine Collection

Brine Cleanup

Blowing-Out And Recovery

Iodine Finishing

Process Control

2. Lactic Acid From Corn Sugar

Dextrose, Whey, Or Molasses May Be Used For Lactic Acid Fermentations

Four Different Grades

In Commercial Practice Yields Of 85% Of Fermentable Hexose Are Normal

L. Delbruckii Is Culture Used; Corn Sugar Is Principal Fermentation Medium

Calcium Lactate Is Produced During 4- To 6-Day Fermentation Period

Recycled Calcium Sulfate Added To Aid Filtration
Calcium Lactate And Sulfuric Acid React To Form Lactic Acid
Stainless Steel Is Used For Acid Evaporators
Calcium Lactate Is Also Processed As An End Product
Fermentation Processes Operate Around The Clock
Corrosion Is A Major Problem In Production Of Lactic Acid
Foods And Tanning Industries Use Large Quantities Of Lactic Acid
Salts And Other Derivatives Are Used In Diversified Industries
Future Expansions In Lactic Acid Production Must Supply A Quality Product At A Lower Price

3. Modern Production Of Chlorine And Caustic Soda

Raw Materials
Storage And Preparation
Chlorine Production
Caustic Preparation
Hydrogen Chloride
Filling And Storage Systems
Instrumentation And Safety

4. Nitrofurans

Uses For Nitrofurans Extend Into Fields Of Both Human And Veterinary Medicine
Synthesis Of 5-Nitro-2-Furaldehyde Diacetate Is Initial Phase Of Batchwise Procedure
5-Nitro-2-Furaldehyde Diacetate Is Reacted With Semicarbazide To Form Nitrofurazone
Synthesis Of Furazolidone Is Based On Reaction Of 3-Amino-2-Oxazolidone With 5-Nitro-2-Furaldehyde Diacetate
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Sec. Butyl Acetate

Tert-Butyl Acetate

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Flow Diagram

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Grades

Toxicity

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Manufacturing Process

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From Formaldehyde And Ammonia

Reaction

Flow Diagram

Uses

Grades

Toxicity

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Reaction

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Note

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Note

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Note

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Note

Grades

Toxicity

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Note

Reaction

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Flow Diagram

Note

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Thermoforming
Rotational Molding
Foamed Plastics
Plastics And Environmental Issues

About Niir

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