

# Selected Formulary Book on Petroleum, Lubricants, Fats, Polishes, Glass, Ceramics, Nitrogenous Fertilizers, Emulsions, Leather and Insecticides

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## About the Book

A man entering an industry soon finds that most of the products manufactured by his company are not synthetic or definite chemical compounds, but are mixtures, blends or highly complex compounds of which he knows little or nothing. The literature in this field, if any, may be meager, scattered or antiquated. Formulation is a key process in the overall life cycle so that products are delivered that is of the right quality, at a competitive cost, and is made available within the specified time scale. A formula is an entity constructed using the symbols and formation rules of a given logical language. In science, a specific formula is a concise way of expressing information symbolically as in a mathematical or chemical formula. The chemical formula identifies each constituent element by its chemical symbol and indicates the number of atoms of each element found in each discrete molecule of that compound. If a molecule contains more than one atom of a particular element, this quantity is indicated using a subscript after the chemical symbol and also can be combined by more chemical elements. It is all in the formula, whose implications also remain undiscovered by modern economists. It plays a major role in every process whether it is manufacturing process or preservation. There is a big importance of formula in our life because formulas and equations deal with everyday things like shapes, investments, mixing things, movement, lighting, travel and a host of other things they provide information you can use in planning activities.

This book basically deals with the extracting oil from cottonseed, silver nitrate test for cottonseed oil, solid linseed oil, decolorizing or bleaching linseed oil, linseed oil for varnish making, refining linseed oil, mineral oil, leather stuffing grease, leather adhesion grease, liquid belting lubricant, belt adhesion compounds, belt preserving grease, government harness dressing, rubber belt dressing (non static), wire drawing lubricant, wire drawing composition, metal drawing lubricant, cold drawing metal lubricant, drawing compound for aluminum, brass drawing lubricating emulsion, sheet steel drawing lubricant, non seizing threads and gaskets, machine tool lubricant, slushing oil for metal protection horse shoe grease etc.

This book is an invaluable resource of the formulae of petroleum, lubricants, fats, polishes, glass, ceramics, nitrogenous fertilizers, emulsions, leather and insecticides. This book present several hundred advanced product formulations for household, industrial and other applications. The purpose of publishing this book is very useful for chemists, entrepreneurs, existing units, technocrats and engineering students.

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1 LUBRICANTS, OILS, FATS

Lubricants



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Mineral Oil  
Mixing Castor Oil with Mineral Oils  
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Boiled Oil  
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Drying Oils  
Dust-Laying Oil  
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Pain-Subduing Ointment  
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Alum Ointment  
Carbolic Salve  
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Metal Drawing Lubricants  
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Upper Cylinder Lubricant

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Chassis-Protecting Oil  
Rifle Oil  
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Laboratory Stopcock Lubricants  
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Modified Turkey Red Oil  
Soluble Oil Base

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Boring Fluid for Heaving Shale Ground  
Non-Corrosive Rock Drill Lubricant  
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Aluminum Drawing Lubricant  
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Lubricating Grease  
Light Colored  
Carriage Lubricating Grease  
Wire Rope Grease  
Friction Grease  
Rope Grease  
Water Wheel Grease  
Belt Adhesion Grease  
Protective Grease for Airplane Engines  
Axle Grease  
Anti-Rust Grease for Tools  
Leather Grease  
Horse Hoof Grease  
Horse Hoof Healing Grease  
Improved Stopcock Grease  
Preventing Discoloration of Higher Fatty Acids  
Graphite Lubricant  
Graphite Suspension  
Lubricating Grease Base  
Cup Greases  
Locomotive Rod Cup Grease  
Driving Journal Grease  
Cup Grease  
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Cooking Cup Grease  
Graphite Cup Grease  
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Lubricating Grease High Temperature  
Grease, Lubricating  
Lubricating Grease, Gasoline Proof  
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Lubricant Non-greasy  
Bicycle Chain Lubricant  
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Boring Oil  
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Candles, Non-sticking  
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Castor Oil, Sulfonating  
Castor Oil, Thickening  
Cutting or Spraying Oil  
Mineral Oil Softener  
Dry Powdered Lubricant  
Cutting Oil Emulsions  
Resin Soluble Cutting Oil  
•Cutting• Oils  
Cylinder Oil  
Dewaxing Lubricating Oil  
Drawing Oil  
Fish Oil, Purifying  
Increasing Viscosity of Oils  
Lubricating Grease Base  
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Oil, Penetrating  
Pine Oil, Solidified  
Porcelain Mold Oil  
Rayon Lubricating Oil  
Soluble Oils  
Stainless Knitting Oil  
Oil for Leather  
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Lubricating Oil, Chatterless  
Lubricating Oil, Low Cold Test  
Lubricating Oil, Reclaiming Used  
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Olive Oil, Bleaching  
Palm Oil, Decoloring  
Silk and Rayon Boil Off or Degumming Oil  
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Textile Oil, Soluble  
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Transformer Oil, Stabilizing  
Improving Transformer Oils  
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Valve Stem Packing  
Heat Conducting Lubricant  
High Speed Bearing Lubricant  
Flotation and Cutting Oil Base  
Gear Lubricant for Arctic Climates  
Sulphur Lubricant Base  
Anti-Rust Compound  
Steering Gear Lubricant  
Mixed Base Grease  
Non-Bleeding Grease  
Lubricant for Bearings with High Temperatures and Pressure  
Metal Rolling Lubricant  
Non-Greasy Lubricant  
Olive Oil Motor Lubricant  
Lubricating Grease for Carriages  
Chain Lubricant  
Penetrating Oil  
Core Oil  
Stuffing Grease  
Cutting Oil  
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Brake Oil (Non-Rancid)  
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Radiator Anti-Rust Compound  
Greaseless Lubricating Pencil  
Dynamo Brush Lubricant  
Cotton Spindle Machine Oil  
Veneer Press Caul Lubricant  
Transformer Oil  
Petroleum Proof Valve Lubricant  
Rubber Mold Lubricant  
Screw Thread Lubricant  
Vacuum Tap Grease  
Journal Grease  
Spring-Leaf Lubricant  
Nickel and Monel Drawing Lubricant

Wire Drawing Lubricant  
Drawing Die Lubricant for Diamond Dies  
Corrosion Protecting Grease  
Lubricant for Preventing Corrosion  
Lubricating Haulage Ropes  
Hot Neck Grease  
High Temperature Lubricants  
Non-Chilling Lubricants  
Rod Lubricant  
Solid Lubricant  
Hard Grease  
Graphite Lubricant  
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Mineral Oil Soluble Castor Oil  
Lubricant Insoluble in Organic Solvents  
Tempering Fats (Bath to Quench and Harden Steels)

2. POLISHES AND ABRASIVES

Automobile Polish  
Auto Polish  
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Automobile Polishing Powder  
Automobile Polish  
Furniture Polish  
Polishing Cloth  
Oil Polish for Furniture  
Furniture Polish  
• Removing • Scratches from Furniture  
Furniture Finishing Oil  
Furniture, Lacquer Enamel and Polished  
Nickel or Chromium Wax Polish  
Floor Wax, Liquid  
Non-Slippery Floor Wax  
Homemade Floor Wax  
Floor Finish  
Floor Sweeping Compound  
For Polished Floors  
Bright Drying Wax Polish  
Rubless Wax Polish  
Easy Rubbing Wax Polish  
Wood-Preserving and Finishing Compound  
Dustless Mop Oil  
Stove Polish  
Window Polish  
• Italian • Powder for Polishing Marble  
Colored Burnishing Clay  
Sharpening Compositions  
Silver Polishing Soap  
Copper Polish  
Metal Polish for Chromium or Silver  
Brass Polish  
Metal Content of Plating Salts



Weather-Proof Mirrors  
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 Automobile Polishes (Pastes)  
 Automobile Polishes  
 Solvent-Drying Oil Type  
 Abrasive "Drying Oil Type  
 Wax-Solvent Type  
 Automobile Cleansers  
 Polishing Wax for Rotating Discs  
 Non-Scratching Polish  
 Emulsion Polish  
 Lacquer Polish  
 Liquid Metal Polishes  
 Metal-Polish Cake  
 Metal Polish (Non-Inflammable)  
 Metal Polish (Solvent Type)  
 Metal Polish Pastes  
 "Globus" Type  
 Metal Polishing Cloths  
 Tripoli Compo (Polish)  
 Tripoli Buffing Stick  
 Metal Cleaner and Brightener  
 Polishing Metals for Metallographic Analysis  
 Metal Cleaner for Beer Pipes and Apparatus  
 Brass Polish Paste  
 Aluminum Polish Powders  
 Polishing Powders for Copper, Brass, Nickel, Chromium etc.  
 Copper and Steel Polish  
 Nickel and Chrome Polish  
 Polish for Nickel, Chrome and Alloys  
 Nickel, Chrome, Copper and Brass Polish  
 Copper Kettle Polish  
 Iron and Steel Polishing Powder  
 Oven Frame Polish  
 Oven Cover Polish  
 Liquid Chromium or Nickel Polish  
 Liquid Polishes for Iron or Steel  
 For Forks and Knives  
 Polish for Silver, Nickel, Brass, Chromium etc.  
 Silver Polishes  
 Liquid Silver Polishes  
 Silver Plating Polish  
 Silver Polish Powders  
 Silver Polishing Cloths  
 Removing Silver Tarnish  
 Stove and Oven Polishes Aqueous Paste  
 Oily Paste  
 Viscous Oily Liquid  
 Wax Emulsion Stove Polish



Wax Block Stove Polish  
 Wax Paste Stove Polish  
 Stove Polish, Paste  
 Stove Polish, Semi-Liquid  
 Liquid Stove Polish  
 Stove Blacking  
 Stove Polish  
 Non-inflammable Stove Polish  
 Quick Drying Stove Polish  
 Stove Cleanser  
 Liquid Oven Polish  
 Stove and Oven Polish Powders  
 Stove and Oven Polishes Liquid  
 Oven Polish, Solid  
 Oven Polish  
 Oven Polish Emulsion  
 Oven Polish, White  
 Stove "Lacquer"<sup>TM</sup>  
 Liquid Grate Polish  
 Water-Resistant Floor Emulsion Polish  
 Preparation  
 Non-Slippery Bright Drying Floor Wax  
 Bright Drying (Non-Rubbing) Polish  
 Rubless Bright Drying Water Wax Polishes  
 Transparent Bright Dry Wax Emulsion  
 Semi Bright Drying Wax Emulsion Polishes  
 Bright Drying Floor Polish (Non-Rubbing)  
 Floor Polish For Inlaid Floor  
 Floor Polishes  
 Colored Floor Polish  
 Floor Polish (for Rubber Floor)  
 Liquid Floor Wax 5 gal. Batch  
 Antiseptic Insecticidal Floor & Furniture Polish  
 Floor Polish Powders  
 Floor Mop Oil  
 For Floors  
 Furniture Polish  
 French Polishing  
 Polish For Piano Keys  
 Furniture and Automobile Polish  
 Oil Polish  
 Cleaning and Polishing Table Tops  
 Window Polishes  
 Leather Cleaning and Polishing Stick  
 White Shoe Cleaner Formulation  
 Types of Cleaners  
 White Shoe Dressing  
 White Kid Cleaner  
 White Leather Polish  
 Shoe Polishes  
 Dyes for this Formula

(Water Paste Type) Black  
Non-Alkaline  
Shoe or Floor Polish  
Liquid Shoe Polish  
Shoe Polish-Paste  
Emulsion Type  
Tropical Shoe Creams  
Mahogany  
Shoe Creams, High Temperature Pouring  
Low Temperature Pouring High Grade Creams  
Colored Water Creams  
Metal Polish  
Liquid Metal Polishes  
Paste Metal Polish  
Wax Polish for Varnished Metals  
Silver Polish  
Chromium Polish  
Tin Plate Polish  
Fine Instrument Scale Polish  
Polishing by Barrel Tumbling  
No-Rub Floor Polishes  
Natural Resin Wax Polishes  
Emulsified Floor Waxes  
Liquid Floor Wax  
Paste Floor Wax  
Solvent Floor Polish  
Wax Polishes for Wood  
Wax-Water Polishes for Wood  
Furniture Emulsion Polish  
Auto Polish  
Water Resistant Wax Polish  
Wax for Polishes  
Plastic Polish  
Polishing for Synthetic Resin Plastics  
Polish for Cord  
Paste Polish  
White Shoe Cleaners  
White Shoe Polishes  
Perfume with Benzaldehyde  
Shoe Creams  
White Shoe Cleaning Paste  
Black Shoe Polish with a Lasting Shine  
Paste Shoe Polish  
Pyrotechnic Compositions Outdoor Red Fire  
Outdoor Green Fire  
Outdoor Blue Fire  
Pink Smoke Composition  
Pyrotechnic Flare  
Signal Torch (Flare)  
Bomb and Military Shell Explosive  
Mine Explosive



Blasting Explosive  
Explosive Primer  
Aluminum Polish  
Directions for Use  
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Silver Polish  
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Non-Scouring Copper Polish  
Chromium Polishes  
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Metal Polish (Sidel Type)  
Metal Polish Block  
Black Polish for Ovens  
Automobile Polish Cleaner  
Car Polishes  
Automobile Cleaner and Polish  
Automobile Paste Polish  
Automobile Polish, Powdered  
Automobile Polish (Tumbler's)  
Auto Polish, Wax Base  
Solid Abrasive Polish (Wax), Automobile  
Auto Polish  
Polish for Lacquered or Polished Objects  
Polish for Leather Furniture  
Liquid Furniture Polish  
Furniture Polish  
Furniture Finishers Polish  
Covering Polish for High-Gloss Polished Furniture  
Floor Polish  
Liquid Floor Polish  
Deodorized Floor Polish  
Dyestuffs for Floor Polishes  
Other Oil Coloring Bases  
Floor Oils  
Mop (Floor) Oils  
Mop Oil Polishes  
Water Soluble Floor Oil  
Dance Floor Wax  
Linoleum Wax  
Clear Wax  
Red Wax  
Red Stain for Linoleum  
Wax Polishes  
Wax Paste Polish  
Emery Polishing Paste  
Wax Polish  
Wood Button Polish  
Axe or Hammer Handle Wax  
Liquid Ski Waxes™™  
Norwegian Klister (Ski) Waxes  
Ski Wax



## Ski Finishes

High-Luster Polish for Shoes

Shoe Polish Paste

Shoe Polish

Dyeing Shoe Polish, Liquid

Sporting Shoe Dressings, Paste

Shoe Paste, Black

White Shoe Polishing Stick

White Shoe Dressing

Shoe White (Water Type)

Shoe White (Waterproof Type)

White Shoe Cleaner

White Shoe Dressing

Polishing Cloths

Cleansing and Polishing Compositions

Pore Filler for Polish Bases

Hardness Scale for Abrasives

## 3. MATERIALS OF CONSTRUCTION

Rapid Etching of Glass for White and Silky Matte

Glass Etching Resist

Glass Etching Paste

Frosting Glass

Frosting for Inside of Glass Bulbs

Glass Decoration

Coloured Glasses

Red Ruby Glass

Yellow Glass

Bright Green Glass

Dark Green Glass

Bright Blue Glass

Dark Blue Glass

Purple Glass

Violet Glass

Amber Glass

Black Glass

Brown Glass Batch

Tempering Glass

Laminated (Safety) Glass

Multicellular Glass

Luminescent Glass

Photoluminescent Glass

X-Ray Absorption Glass

Telescope Mirror Glass

Decolorizing Glass

Plaster Mold for Roofing Tiles

Building Tile Composition

Artificial Marble

Oil Coating for Glass Fibers

Tridymite Stone

Soapstone Table Preservative

Modelling Clay



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 Kieselguhr Ceramics  
 High Strength Ceramic Ware  
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 Pottery Saggars  
 Vitreous Enamels  
 White Enamel-Top Coat  
 Dusting Enamel (Vitreous) for Cast Iron Type  
 High Lead Enamel (Vitreous) Top Coat  
 High Tin (Vitreous) Enamel Top  
 Coat for Cast Iron Type  
 Vitreous Enamel  
 Improved Vitreous Enamel  
 Vitreous Enamel Glaze Base  
 Opaque Vitreous Enamel  
 Extra White Vitreous Enamel  
 Blue Vitreous Enamel  
 Acid-Resistant Vitreous Enamel  
 Vitreous Poreclain Batch  
 Electrical Range Enamel  
 Ground Coat  
 Finish Coat  
 Removing Porcelain Enamel  
 Non-Organic Binder for Porcelain Enamel Frit  
 Brown Glaze for High Tension Insulators  
 Ceramic Underglaze Color Medium for Stencil Color Printing  
 Ceramic, Overglaze Decoration Coating  
 Preventing Efflorescence of Silicate Coatings  
 Colored Roofing Granules  
 Coloring Roofing Granules  
 Light Household Cement  
 Light Cellular Cement  
 Heat Resisting Cement  
 Acid Resistant Cement  
 Clinkerless Slag Cement  
 Hardening Cement-Asbestos Surface  
 Magnesium Oxychloride Cement  
 Toughened Cement  
 Slow Setting Plaster of Paris  
 Dental Plaster Accelerator  
 Accelerator for Setting of Plaster of Paris  
 Cement Setting Accelerator  
 Colored Coating for Cement  
 Colored Concrete  
 Light Weight Cement Concrete  
 Sealing Concrete  
 Concrete Sealing Compound  
 Joint Compound  
 Porous Concrete  
 Gas-Proof Concrete  
 Gas-Proof Mortar



Hardening Concrete Floors  
Heavy Concrete  
Refractory  
Refractory Resistant to Caustic  
Refractory Furnace Bricks  
Petroleum Retort Lining  
Plaster Molds for Roofing Tile  
Graphite-Silicon Carbide Refractory  
Sound Insulating Composition  
Sound Absorbing Composition  
Acoustical Plaster  
Acoustic Wall Board  
Sound and Heat Insulation  
Heat and Sound Insulation  
Sound and Heat Insulation  
Sound and Heat Insulating, Artificial  
Stone  
Heat Insulating Composition  
Thermal Insulation  
Plastic Heat Insulation  
Spark Plug Insulator  
Electrical Insulation  
Wall Board, Insulating  
Porous Ceramic Insulation for Cables  
Boiler Insulation  
Insulation for Dynamo and Transformer Plates  
Wood Floor Fillers  
Hiding of Small Defects in Lumber for Furniture Etc.  
Wood Preservative  
Wood Preservative Against Termites  
Exterior Millwork (Wood) Preservative  
Telegraph and Fence Pole Preservative  
Rot and Insect Proof Fiber Board  
Rot-Vermin Proofed Fiber Board  
Flameproofing Wood  
Fireproofing Wood  
Slow Burning Wood Treatment  
Timber Fire-Proofing and Preservative  
Building Brick  
Wall Plaster  
Wall Plaster or Mortar  
Building Plaster  
Gypsum Plaster Retarders  
Artificial Building Slabs  
Plaster Impervious to Gasoline and Kerosene  
Impermeable Wall, Floor and Road Covering  
Eliminating Dust on Dirt Roads  
Tennis Court Surface Dressing  
Non-Aging Road Binder  
Molasses Binder for Roads  
Paving Composition



Asphalt Paving Composition  
 Asphalt-Molasses Road Composition  
 Conditioning Mineral Road Aggregates  
 Asphalt Sheeting  
 Pottery Bedding Composition  
 Waterproofing Cements  
 Waterproofing Cement and Concrete  
 Waterproofing for Cement and Lime-Plaster  
 Waterproofing for Masonry  
 Waterproofing Cork  
 Waterproofing Composition  
 Acid and Alkali Proofing Masonry  
 Fireproofing Composition  
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 Very Low Melting Alloy  
 (Soft Solders)  
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 Bronze Tablets  
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 Beryllium Bronze  
 Improved Bronze Alloy  
 Popular Bronze Bearing Alloys  
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 Bunting #156â€“Similar to SAE 65, GMC  
 4052-M  
 Bunting #98â€“SAE 62â€“GMC 4048-Mâ€“Similar to ASTM B-10-18  
 Bunting # 162â€“GMC 4075-M  
 Bunting Alloy No. 72â€“GMC 4182-M  
 Bunting # 96â€“SAE 63â€“Similar to GMC 4046-M  
 Bunting # 27â€“SAE 64â€“GMC 4050 Mâ€“ASTM-B-31-21  
 Bunting #135â€“Similar to SAE 67â€“GMC-4056-M  
 Bunting #124â€“SAE #66â€“ GMC-4054-M  
 Bunting #125  
 Bunting # 161  
 Hot Working Copper Alloys  
 Copper Alloy Stable to Steam  
 Non-Staining Copper Alloy  
 Machinable Copper-Base Alloy  
 Copper-Iron Electrical Alloy  
 Silver Electrical Contact Alloy  
 Electrical Contact Alloy  
 Hardening Magnesium Alloys  
 Cable Sheath Lead Alloy  
 Bearing Metal Alloys  
 Die Casting Alloy  
 Pattern Alloy  
 Low Temperature Aluminum Brazing Alloy

Aluminum Alloy Resistant to Sea Water  
Melting Aluminum Turnings  
Non-Blistering Aluminum Castings  
Hard Strong Aluminum Alloy  
Hard and Low Thermal Expansion Aluminum Alloy  
Hints on Spraying Babbitt Metal  
Red Brass  
Imitation Gold  
Coating Metals with Lead  
Watch Compensating Spring Alloy  
Pen Nibs  
Pen Point Alloy  
Hard Pen-Nib Alloy  
Low Temperature Thermometer Alloy  
Electrical Contact Alloy  
Low Expansion Lead-In Wire for Electric Bulbs  
Non-Corrosive Lead-In Wire for Gas Filled Lamps  
Tungsten Wire Forming Compound  
Discharge Lamp Electrode Alloy  
Hot Cathode Electrode  
Lead Alloy for Storage Battery Anodes  
Frictional Alloy  
Heat Hardening Spring Steel Alloy  
Alloys Resistant to Hot Caustic Solutions  
Ferro-Chromium  
Pouring Fusible Metal Models  
Overcoming Lead Sweat  
Type Metal Dross Reducer  
Dental Plate Alloy  
Dental Amalgam Alloy  
Dental Amalgamating Alloy  
Dental Pin Alloy  
Tooth Straightening Metal Alloy  
Dental Plate Alloy  
Non-Blackening Silver Dental Alloy  
Dental Alloy  
Gold Sponge Dental Filling  
Heat Treatment of Spring and Alloy Steels  
Colors Developed in Heating of Steel  
Heat Treatment of Manganese Steel  
Heat Treating Transformer Steel  
Carbonization of Nickel Cathodes  
Thermal Treating Bath for Light Metals  
Tempering Powders (Steel)  
Steel Spring Quenching Emulsion  
Annealing Hack-Saw Blades and Files  
Hardening or Tempering Copper  
Acid Resistant Lining  
Cementations-Bath for Iron and Steel 327  
Case Hardening Centrifugal, Ferrous  
Castings

Case Hardening Steel  
Steel Hardening Mixture  
Hardening Steel  
Antimony Surface Hardening of Metals  
Case Hardening Composition  
Case Hardening Cast Iron Piston Rings  
Iron Cementing  
Inhibitor, Steel Pickling  
Steel Nitriding inhibitor  
Coating for Ingot Molds  
Preventing Cavities and Segregation in  
Steel Ingots  
Plastic Lead  
Malleable Cast Iron  
Coating for Sand Molds for Light Metal Casting  
Copper Foundry Mold Dressing Paste  
Foundry Mold (Casting) Powder  
Fabrication and Treatment of USS Stainless and Heat Resisting Steels  
Joining of USS Stainless and Heat Resisting Alloys  
Welding  
Austenitic Alloys  
Ferritic Alloysâ€™USS 17 and USS 27  
Ferriticâ€™Martensitic Alloyâ€™USS 12  
Electric Arc Welding  
Acetylene Welding  
Electric Resistance Welding  
Spot and Line Welding  
Flash Welding  
Atomic Hydrogen Welding  
Finishing of Stainless Steel Welds  
Soldering  
Silver Soldering  
Brazing  
Riveting  
Annealing  
Annealing USS Stabilized 18-8  
Annealing USS 17 and USS 27  
Annealing USS 12  
Removal of Oxide and Scale Pickling  
Sandblasting  
Machining and Cutting Operations Machining  
Drilling  
Threading  
Sawing  
Punching and Shearing  
Perforating  
Drawing and Forming  
Application of Finishes  
Spinning  
Finishing of Fabricated Articles  
Grinding, Polishing, Buffing and Brushing



Grinding  
Polishing  
Buffing  
Brushing  
Abrasives  
Buffing Compounds  
Brushing Compound  
Grinding, Polishing and Buffing Wheel and their Preparation  
Coarse Grinding Wheels  
Fine Grinding and Polishing Wheels  
Buffing Wheels  
Finishing Procedures  
Selection of Commercial Sheet Finishes  
Matching Mill Polished Finishes  
Finishâ€™Mirror Finish  
Miscellaneous Finishes  
Pickling Metals  
Pickling Iron  
Stainless Steel Pickling Solution  
Removing Oxide Films from Metals  
Pickling Bath for Duralumin  
Recovery of Waste Pickling Solutions  
Pickling Inhibitor  
Stripping Metal Coatings  
Metal Cleaner and Brightener  
Anodic Oxidation of Aluminum  
Anode, Treatment of Aluminum  
Brightening Aluminum  
Rapid Cleaning of Mercury  
Reclaiming Water-Logged Electric Tools  
Cleaning a Rusted Rifle  
Coloring Metals  
Antique Coloring of Metals  
Green Coloring of Metals  
Coloring Brass Plate Brown  
Coloring Iron-Blue  
Coloring Cadmium Black  
Coloring Cadmium Brown  
Coloring Iron-Black  
Bronzing Copper and Its Alloys  
Bronzing Iron or Steel  
Permanent Blacking Galvanized Sheet Metal  
Bright Dip for Cast Bronze  
Oxidizing Finish for Brass  
Blackening Cast Iron  
Gun Metal Coloring of Pencil Tips  
Bluing Steel Articles  
Bluing Small Machine Parts  
Treatment of Aluminum Before Plating  
Protective Aluminum Coating  
Coating Iron with Molten Aluminum

Enameling Iron  
White Enamel for Cast Iron  
Enamel Coating for Copper  
Radium Protection Sheathing  
Corrosion Preventive Coating  
Metallographic Etching of Zinc and Alloys Etching Fluid  
Molybdenum Etching Solution  
Copper Etching Fluids  
Printing Plate Etch, Copper  
Copper Printing Plate Etch  
Etch for Microscopic Study of Tin  
Stainless Steel Etches  
Micrographic Etch for Lead Specimens  
Metal Etching Mordant  
Etching Designs on Copper  
Purifying Metallic Cadmium  
Removing Welding Scale from Stainless Steel  
De-Scaling Stainless Steel  
Descaling Iron  
Removing Fire Scale from Bronze  
Gas Free Aluminum  
Dephosphorizing Steel  
Removing Residual Calcium from Lead  
Copper Oxide Rectifier Metal  
Removal of Aluminum Oxide from Alloys  
Wear Resistant Iron Surface  
Brazing Flux  
Brazing Solder  
Stop-off Paste for Use in the Silver Brazing of Monel  
Galvanizing Flux  
Welding Rod Flux  
Flux Coating for Welding Electrode  
Flux for Welding Zinc  
Torch Welding Flux  
Soldering Fluxes  
Liquid, Non-Acidic  
For Tin and Base Metals  
For Copper Wires  
For All Metals Except Aluminum  
General Soldering Fluxes  
Soldering Flux  
Iron and Steel Soldering Flux  
Aluminium Chloride  
Soft Soldering Flux  
Easy Spreading Soldering Flux  
Flux for Silver Soldering Stainless Steel  
Aluminum Solder  
Aluminum Plate Solder  
Aluminum Cable Solder  
Solder for Aluminum or Cast Iron  
Copper to Aluminum Solder



Duralumin Solder  
Solder  
Soft Solder  
Solders for Monel  
Low Tin Solder  
Silver Soldering  
Soldering Iron Tip  
Quick Solders, Rose's Metal  
Soldering Fluids  
Soldering Pastes  
Soldering Powders  
For Cast Iron  
For Aluminum  
For Iron, Copper and Brass  
For Aluminum  
Arc Welding Electrodes  
Welding Electrode  
Resistance Welding Electrode  
Welding Flux  
Fluxes for Aluminum Welding  
Welding Powder  
Brass Welding Rod  
Non-Fuming Brass Welding Rod  
Welding Rod  
Iron Welding Rod  
Flux for Cadmium and Its Alloys  
Cadmium Refining Flux  
Steel Dephosphorizing and Desulphurizing Flux  
Metal Melting Flux (For Down-Draft Furnaces)  
Bearing Metal  
Tinning Gray Cast Iron  
Temperature Control Important  
Hot Tinning Cast Iron  
Hot Tinning of Copper  
Hot Tinning Tableware  
Tinning Milk Cans  
Testing Tin Plate Pores  
The Hot-Tinning of Fabricated Articles  
The Tinning of Copper Tubes  
The Tinning of Steel Hollow-Ware  
The Tinning of Copper Wire  
The Tinning of Steel Wire  
The Tinning of Cast Iron  
The Tinning of Miscellaneous Articles  
Rustproofing Composition  
Rust Cleaning and Rust Proofing  
Rustproofing Iron  
Rustproofing for Iron and Steel  
Rustproofing Steel (Phosphatizing)  
Black Iron Stain for Bust Prevention  
Rust Remover



Rustproofing Composition  
 Rust Removal  
 Anti-Tarnish Bags for Silver  
 Silver Tarnish Inhibitor  
 Corrosion Proofing Aluminum  
 Corrosion Proofing Iron  
 Corrosion Resistant Radiator Pipe  
 Brass, Corrosion Resistant  
 Coating Iron Strips with Carbon  
 Foundry Core  
 Foundry Mold Coating, Asphalt  
 Foundry Mold Wash for Green Sand  
 Regenerating Foundry Core and Molding Sand  
 Copper Mold Dressing  
 Mold for Casting Stainless Steel  
 Molds for Precision Castings  
 Nickel Casting Facing  
 Care of Platinum Vessels  
 Tumbling Castings  
 Aluminum Powder  
 Froth Flotation Compound  
 Froth Flotation Agent for Oxide Ores  
 Froth Flotation Cleaning of Fire Clays  
 Recovering Tin from Scrap Tin Plate  
 Recovering Tin from Dross  
 Cutting Wire Cable  
 Reconditioning Steel Splice Bars  
 Impregnation of Metals  
 Non-Oil-Wetting Metal Surfaces  
 Freeing Frozen (Stuck) Pistons  
 Steel and Iron Identification  
 Seasoning (Drying) Wood  
 4. CERAMICS AND GLASS

Glass Electrode Seal  
 Foamed Glass  
 Coating for Optical Lenses  
 Coating for Optical Lens  
 Solder Glass  
 Typical Flux for Glass Color  
 Dry Process Ground Coat Enamels for Cast Iron  
 Dry Process Cover Coat Enamels for Cast Iron  
 Batches for Matte Glazes  
 Wollastonite Satin and Matte Glazes  
 Single-Application Textured Glazes  
 Two-Coat Textured Glazes  
 Base Coat Glazes  
 Overspray Glazes  
 Batches for Gloss Glazes  
 Zirconium Silicate  
 High-Temperature Glazes for Sanitary Ware

Low-Expansion Glazes for Vitreous Bodies  
Batches for Fast-Fire Glazes on Talc or Wollastonite Bodies

#### 5. LEATHER

Hide and Skin Preservative  
Degreaser for Hides  
Leather Bleaching  
Bleaching Tanning Extract  
Syntan  
Fat Liquor  
Synthetic Tanning Emulsion  
Leather Finish  
Antiseptic Leather  
Mildewproofer for leather Goods  
Fireproofing Emulsion for Leather  
Chlorinated Paraffin  
Belt-Traction Dressing  
Fur-Carrotting Solution  
Finish for Split Leather

#### 6. PETROLEUM REFINERY PROCESSES AND PETROLEUM PRODUCTS

Introduction  
Petroleum Fractionation (Distillation)  
Conversion of Petroleum Fractions  
Purification of Petroleum Fractions  
Extraction of Components and Blending Techniques  
Gases  
Motor Fuels  
Heating and Illuminating Oils  
Lubricants  
Other Oils  
Petroleum Waxes and Petroleum  
Asphalts  
Oil Wastes  
Petroleum Products for Petrochemical  
Synthetic Petroleum Products

#### 7. NITROGENOUS FERTILIZERS

Nitrogenous Fertilizers and the Cyclic Process of Plant Nutrition  
Significance of Inorganic Nitrogenous  
Fertilizers

#### 8. PYROTECHNICS AND EXPLOSIVES

Military Smoke  
Military Oxygen-Generating Candle  
Ignition Cone for Oxygen Candles  
Smoke Grenade Fuse Trains  
First-Fire Charge  
Delay Charge  
Ignition Charge  
Nondetonating Gas Charge  
Fuse Powder  
Extrudable Fusee

Extruded Fuse  
Gasless Fuse Powder  
Delay-Fuse Powder  
Railroad Signal Flare  
Yellow Signal Flare  
Railroad Signal Torpedo  
Devil's Step on the Walk  
Incendiary Igniter  
Blasting-Cartridge Discharger  
Electric-Blasting Detonator  
Plastic Nonhardening Explosive  
Unsheathed Safety-Explosive Cartridge  
Match Heads  
Tracer-Projectile Igniter  
Fuse Powder  
Flashless Military Propellant

## 9. AMMONIUM PHOSPHATES AND AMMONIUM POLYPHOSPHATES

Ammonium Phosphates  
Principal Reactions  
Properties  
Production Considerations  
Manufacturing Methods  
Ammonium Polyphosphates  
Production Methods  
Applications

## 10. CHEMISTRY AND PROCESSING OF UREA AND UREAFORM

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Physical and Chemical Properties  
Methods of Analysis  
Manufacture  
Preparation of the Neutral Urease Solution  
Manufacture  
Urea in Agriculture  
Use  
Ureaform  
Chemical and Physical Properties  
Agronomic Aspects of Ureaform  
Method of Analysis  
Manufacture of Ureaform  
Ureaform in Mixed Fertilizers  
Uses  
Mixed Fertilizers

## 11. MANUFACTURE OF ORDINARY SUPERPHOSPHATE

Production Technology of Simple Superphosphate  
Preparation of the Raw  
Materials  
Manufacture of Superphosphate  
Additional Operations  
Sulphuric Acid as a Raw Material in the Manufacture of Superphosphate  
Transport and Storage of Sulphuric Acid

Reactions Occuring in Superphosphate Manufacture  
Stoichiometric Amount of Sulphuric Acid and Peculiarities of the Decomposition Reaction  
Main Technical-Analytical Indices of Superphosphate Manufacture  
Manufacturing Indices of Ordinary Superphosphate from Vietnam  
Phosphorite  
Fast Curing of Superphosphate  
Apparatus used in Superphosphate Manufacture  
Phosphate Metering Devices  
Acid Metering Devices  
Mixing of Raw Materials  
Automation of Metering and  
Preparation of Raw Materials  
Dens for Superphosphate Manufacture  
Equipment for Trapping Fluorine-Containing Gases  
Storage and Conditioning of Super- phosphate  
12. EMULSIONS, DISPERSIONS AND FOAMS  
Hydrocarbon Solvent Emulsions  
Chlorinated Solvent Emulsions  
Oil Emulsions  
Cocoa Butter Emulsion  
Benzyl Benzoate Emulsion  
Methyl Salicylate Emulsion  
Sulfathiazole Emulsion  
Glycol Ester Resin Emulsions  
DDT Emulsion  
Nonaethylene Glycol Oleate  
Viscous Wax and Grease Emulsions  
Low Viscosity Wax Emulsions  
Irish Peat Wax Emulsion  
Acrawax Emulsion  
Acrawax C Emulsion  
Fatty Acid-Amide Emulsion Commercial Octadecane Amide  
Soluble Mineral Oil Emulsions  
Derivation of the Optimum Formula  
Soluble Vegetable and Animal Oil Emulsions  
Soluble Solvent Emulsions  
Industrial Mineral Oil Emulsion  
Cutting Oil Emulsion  
Soluble Oils  
Soluble Neatsfoot Mineral Oil  
Soluble Pine Oils  
Emulsions with Pectin  
Zein Dispersion  
13. INSECTICIDES, FUNGICIDES AND WEED KILLERS  
Insect Repellent  
Silicone Insect Repellent Emulsion  
Insect Repellent Sticks  
Clothing Insecticide Impregnant  
Insecticide Cone (Burning)  
Aerosol Spray Concentrate  
Fumigant Insecticidal Tablets

Wettable Powder Insecticide  
Insecticide Emulsion  
Lindane Emulsion  
Methyl Parathion Emulsion Concentrate  
Methyl Parathion Dust Concentrate  
• Strobane Formulations for Liquid Sprays  
Aerosols  
65% • Toxaphene Emulsifiable  
Concentrate (Cationic)  
45% Chlordane Emulsifiable  
Concentrate (Cationic)  
85% Chlordane Emulsifiable  
Concentrate (Nonionic)  
Phosdrin Insecticide Dust  
Endrin Insecticide Emulsion Concentrate  
Endrin Insecticide Dust  
Dieldrin Emulsifiable Concentrate  
Dieldrin Insecticide Base  
Aldrin Wettable Powder Insecticide  
Aldrin-DDT Emulsifiable Concentrate  
DDT Insecticide  
DDT Dispersion Concentrate  
25% DDT Emulsifiable Concentrate  
(Cationic)  
DDT-Oil Larvicide  
Self-emulsifying Agricultural Spray Oil  
Agricultural Spray Adhesive  
Cattle & Space Fly Spray  
Aerosol Cattle Fly Spray  
Mothproofing Aerosol  
Peanut Storage Fumigant  
Grain Fumigant  
Nonflammable Fumigant  
Increased Flash Point Fumigant  
Dog Repellent  
Rodenticide & Rat Repellent  
For Cordage & Sacks  
Plant Defoliant  
Borax Weed Killer  
Rope Preservative Fungicide  
Agricultural Fungicide  
Citrus Fruit Fungicide  
Oak Wilt Fungus Spray  
Insect Repellent Stick for the Skin  
Insect Repellent  
Self-Propagating Thermal Insecticide  
Self-Vaporizing Insecticide  
Insecticide Aerosols  
Herbarium Aerosol Insecticide  
Aerosol-Generating Propelling  
Composition

Protecting Stored Tobacco Leaf  
Grape-Vine Fungicide

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