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TEXTILE FINISHING CHEMICALS

An Industrial Guide

by

Ernest W. Flick



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CIP

*To my Mother
May God Bless*

Preface

This book describes more than 3,150 textile finishing chemicals which are currently available for industrial use. The book will be of value to technical and managerial personnel involved in the specification and use of textile finishing chemicals. It has been compiled from information received from 74 manufacturers and distributors of these chemicals, who responded to our requests for product information.

Textile finishing chemicals are a growth industry, with sales volume increasing at about 5% annually. Typical applications and uses of the chemicals presented in the book include: flame retardants, softeners, soil-repellents, hand modifiers, antistatic agents, biocides, fixatives, scouring agents, leveling agents, dispersants, defoamers, anticracking agents, binders, lubricating agents, stiffeners, and sequestering agents.

The chemicals may constitute a substantial portion of the finished textile. In many cases 10% or more of the fabric's final weight may derive from textile chemicals added to improve or enhance one or another of the fabric's properties. Representative raw materials employed for textile finishing applications are: fatty alcohol ether sulfates, vinyl acetate-ethylene copolymers, hydrated alumina, alkylolamides, alkoxylates, chlorinated paraffins, alginates, sodium tripolyphosphates, sorbitan fatty acid esters, ethoxylated triglycerides, and silicones.

The data included represent selections from manufacturers' descriptions, in the manufacturer's own words, made at no cost to, nor influence from, the makers or distributors of the materials. Only the most recent information has been included. It is believed that all of the products listed here are currently available, which will be of utmost interest to readers concerned with product discontinuances.

The book lists the following product information, as available, in the manufacturer's own words:

- (1) Company name and product category,
- (2) Trade name and product number,
- (3) Product description including properties and applications, as presented by the supplier.

Products are presented by company, and the companies are listed alphabetically. The table of contents is organized in such a way as to serve as a subject index to the book. Also included are a Chemical Name Index and a Trade Name Index, for easy and rapid location of products by the reader. In addition, another section, which will be useful, contains the Suppliers' Addresses. It can be found immediately following the Product Information section.

My fullest appreciation is expressed to the companies and organizations which supplied the data included in the book.

March 1990

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility for the accuracy or completeness of, or consequences arising from, such information. This industrial guide does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Publisher.

In some cases textile finishing chemicals could be toxic, and therefore due caution should be exercised. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Product Information

2 Textile Finishing Chemicals

ACETO CHEMICAL CO., INC.: Textile Chemicals:

Acetophenone

Aluminum Triformate

Dimethyl Formamide

MAPO (Tris-[1-(2-Methyl)-Aziridinyll]-Phosphine Oxide)

Monochloro Acetic Acid

Oxalic Acid

Polyethylene Imines (various molecular weights)

Propylene Imine

Sodium Formaldehyde Sulfoxylate

Sodium Hydrosulfite

Sodium Lauryl Sulfate Needles (EMPICOL LZV/E)

Sodium Lauryl Sulfate Powder (EMPICOL LZ/E)

Sodium Monochloro Acetate

Sodium-m-Nitro Benzene Sulphonate

Tannic Acid

Thiourea

Thiourea Dioxide

AIR PRODUCTS AND CHEMICALS, INC.: AIRFLEX Ethylene-Vinyl Chloride(EVCL):

Emulsions for Nonwovens and Textiles:

AIRFLEX EVCL emulsions are a series of versatile anionic resin latices designed for nonwoven bonding, coating, adhesive and saturant applications. These terpolymer resins are predominantly vinyl chloride and ethylene coreacted with a third monomer that imparts either amide or carboxyl groups to the saturated carbon-to-carbon polymer backbone.

Some specific applications for non-wovens and textiles are:

- * Fire Retardant Fabrics
- * Underpad and Incontinent Product Coverstock
- * Medical Disposables
- * Hi-Loft/Filtration Fabrics
- * Fiberglass Mat
- * Roofing Substrate Saturant
- * Fabric Surface Coating

AIRFLEX EVCL Standard Grades:

4500:

Typical Emulsion Properties:

Solids Content, Wt. %: 50

pH: 7-9

Viscosity, cps: 25-150

Functional Group: Amide

Odor: Low

Mechanical Stability: Excellent over pH range 4-11

Particle Size Range, Microns: .11-.19

Particle Charge: Anionically stabilized

Density (lbs/gal): 9.0-9.4

% Chlorine Content, by Weight: 39

Typical Film Properties:

Glass Transition Temperature, C: 3+-3

Film Formation at Room Temperature: Yes

Tensile Strength, psi: 600

Elongation at Break, %: 1700

Heat-Sealing Temperature, F: 190

AIR PRODUCTS AND CHEMICALS, INC.: AIRFLEX Ethylene-Vinyl Chloride(EVCL)(Continued):

Airflex EVCL Standard Grades(Continued):

4514:

Typical Emulsion Properties:

Solids Content, Wt. %: 50

pH: 7-9

Viscosity, cps: 25-150

Functional Group: Amide

Odor: Low

Mechanical Stability: Excellent over pH range 4-11

Particle Size Range, Microns: .11-.19

Particle Charge: Anionically stabilized

Density (lbs/gal): 9.0-9.4

% Chlorine Content, by Weight: 42

Typical Film Properties:

Glass Transition Temperature, C: 12+-3

Film Formation at Room Temperature: Yes

Tensile Strength, psi: 1100

4530:

Typical Emulsion Properties:

Solids Content, Wt. %: 50

pH: 7-9

Viscosity, cps: 25-150

Functional Group: Amide

Odor: Low

Mechanical Stability: Excellent over pH range 4-11

Particle Size Range, Microns: .11-.19

Particle Charge: Anionically stabilized

Density (lbs/gal): 9.2-9.6

% Chlorine Content, by Weight: 46

Typical Film Properties:

Glass Transition Temperature, C: 29+-3

Film Formation at Room Temperature: No

Tensile Strength, psi: 2100

4814:

Typical Emulsion Properties:

Solids Content, Wt. %: 49

pH: 8.5-11.0

Viscosity, cps: 100-400

Functional Group: Carboxyl

Odor: Ammoniacal

Mechanical Stability: Excellent over pH range 4-11

Particle Size Range, Microns: .11-.19

Particle Charge: Anionically stabilized

Density (lbs/gal): 9.0-9.4

% Chlorine Content, by Weight: 42

Typical Film Properties:

Glass Transition Temperature, C: 12+-3

Film Formation at Room Temperature: Yes

Tensile Strength, psi: 1100

AIR PRODUCTS AND CHEMICALS INC.: Emulsions for the Textile Industry:

Product:

AIRFLEX Vinyl Acetate-Ethylene Copolymers:

AIRFLEX TL-10:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 150-700
Solids (% min): 55
pH: 5-6
Density (lbs/gal): 8.9
Particle Charge: Nonionic
Tg C: 7
Water Resistance: Excellent
Uses: Coatings, hand modifier
Advantages: Economical, easily compounded

AIRFLEX TL-12:

Polymer Type: Vinyl Acetate-Ethylene Self-Crosslinking
Viscosity (cps): 100-600
Solids (% min): 52
pH: 5-6
Density (lbs/gal): 8.7
Particle Charge: Anionic
Tg C: -16
Water Resistance: Excellent
Uses: Flock binder, coatings, finishes
Advantages: Economical, lower add-on, easily compounded

AIRFLEX TL-15:

Polymer Type: Vinyl Acetate-Ethylene Self-Crosslinking
Viscosity (cps): 400-1200
Solids (% min): 52
pH: 5-6
Density (lbs/gal): 8.8
Particle Charge: Anionic
Tg C: 0
Water Resistance: Excellent
Uses: Flock binder, coatings, finishes
Advantages: Economical, lower add-on, easily compounded

AIRFLEX TL-30:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 1800-2700
Solids (% min): 55
pH: 4-5
Density (lbs/gal): 8.8
Particle Charge: Nonionic
Tg C: 18
Water Resistance: Fair to Good
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantages: Economical, easily compounded

AIR PRODUCTS AND CHEMICALS, INC.: Emulsions for the Textile Industry(Continued):

Product:

AIRFLEX Vinyl Acetate-Ethylene Copolymers(Continued):

AIRFLEX TL-32

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 1800-2700
Solids (% min): 55
pH: 4.5-5
Density (lbs/gal): 8.9
Particle Charge: Nonionic
Tg C: 14
Water Resistance: Very Good
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantages: Economical, easily compounded

AIRFLEX TL-40:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 1800-2700
Solids (% min): 55
pH: 4.5-5
Density (lbs/gal): 8.85
Particle Charge: Nonionic
Tg C: 0
Water Resistance: Good
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantages: Economical, easily compounded

AIRFLEX TL-41:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 1300-2200
Solids (% min): 55
pH: 5-7
Density (lbs/gal): 8.7
Particle Charge: Nonionic
Tg C: -15
Water Resistance: Fair
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantages: Economical, easily compounded

AIRFLEX TL-46:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 1900-3800
Solids (% min): 52
pH: 3.5-5
Density (lbs/gal): 8.8
Particle Charge: Nonionic
Tg C: 0
Water Resistance: Good
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantage: Economical, easily compounded

AIR PRODUCTS AND CHEMICALS, INC.: Emulsions for the Textile Industry(Continued):

Product:

AIRFLEX Vinyl Acetate-Ethylene Copolymers(Continued):

AIRFLEX TL-51:

Polymer Type: Vinyl Acetate-Ethylene
Viscosity (cps): 250-900
Solids (% min): 55
pH: 4.8-5.5
Density (lbs/gal): 9.1
Particle Charge: Nonionic
Tg C: 4
Water Resistance: Excellent
Uses: Coatings, hand modifiers, finishes, warp size additives
Advantages: Economical, easily compounded

AIRFLEX Ethylene-Vinyl Chloride Copolymers:

AIRFLEX TL-60:

Polymer Type: Vinyl Chloride-Ethylene
Viscosity (cps): 25-150
Solids (% min): 50
pH: 7-9
Density (lbs/gal): 9.17
Particle Charge: Anionic
Tg C: 0
Water Resistance: Good
Uses: Coatings, hand modifiers, saturants, fire-retardants
Advantages: Economical, high filler loadings, easily compounded

AIRFLEX TL-63:

Polymer Type: Vinyl Chloride-Ethylene
Viscosity (cps): 25-150
Solids (% min): 50
pH: 7-9
Density (lbs/gal): 9.37
Particle Charge: Anionic
Tg C: 30
Water Resistance: Excellent
Uses: Coatings, hand modifiers, saturants, fire-retardants
Advantages: Economical, high filler loadings, easily compounded

AIRFLEX TL-64:

Polymer Type: Vinyl Chloride-Ethylene
Viscosity (cps): 25-150
Solids (% min): 50
pH: 7-9
Density (lbs/gal): 9.22
Particle Charge: Anionic
Tg C: 14
Water Resistance: Good
Uses: Coatings, hand modifiers, saturants, fire-retardants
Advantages: Economical, high filler loadings, easily compounded

AIR PRODUCTS AND CHEMICALS, INC.: Emulsions for the Textile Industry(Continued):

Product:

AIRFLEX Ethylene-Vinyl Chloride Copolymers(Continued):

AIRFLEX TL-68:

Polymer Type: Vinyl Chloride-Ethylene
Viscosity (cps): 100-400
Solids (% min): 49
pH: 8.5-11
Density (lbs/gal): 9.20
Particle Charge: Anionic
Tg C: 14
Water Resistance: Good
Uses: Coatings, hand modifiers, saturants, fire-retardant compounds
Advantages: Economical, high filler loadings, easily compounded

AIRFLEX TL-78:

Polymer Type: Vinyl Chloride-Ethylene
Viscosity (cps): 100-500
% Solids (% Min): 52
pH: 5-6.5
Density (lbs/gal): 9.1
Particle Charge: Anionic
Tg C: 0
Water Resistance: Good
Uses: Coatings, hand modifiers, saturants, fire-retardant compounds
Advantages: Economical, high filler loadings, easily compounded.

FLEXBOND Polyvinyl Acetate Copolymers:

Product:

FLEXBOND TL-35:

Polymer Type: Vinyl Acetate-Acrylic
Viscosity (cps): 700-1200
% Solids (% min): 55
pH: 4-6
Density (lbs/gal): 9.1
Particle Charge: Nonionic
Tg C: +13
Water Resistance: Excellent
Uses: Coatings, hand modifiers, finishes
Advantages: Economical

AIR PRODUCTS AND CHEMICALS, INC.: Emulsions for the Textile Industry(Continued):

Product:

VINAC Polyvinyl Acetate Homopolymers:

VINAC TL-1:

Polymer Type: Polyvinyl Acetate
Viscosity (cps): 1000-1400
Solids (% min): 55
pH: 4.5-6
Density (lbs/gal): 9.0
Particle Charge: Nonionic
Tg C: 30
Water Resistance: Fair
Uses: Hand builders
Advantages: Economical

VINAC TL-2:

Polymer Type: Polyvinyl Acetate
Viscosity (cps): 1600-2000
Solids (% min): 55
pH: 4.5-6
Density (lbs/gal): 9.0
Particle Charge: Nonionic
Tg C: 30
Water Resistance: Fair
Uses: Hand builders
Advantages: Economical

VINAC TL-3:

Polymer Type: Polyvinyl Acetate
Viscosity (cps): 2000-2600
Solids (% min): 55
pH: 4.5-6
Density (lbs/gal): 9.0
Particle Charge: Nonionic
Tg C: 30
Water Resistance: Fair
Uses: Hand builders
Advantages: Economical

VINAC TL-8:

Polymer Type: Polyvinyl Acetate
Viscosity (cps): 50-300
Solids (% min): 48
pH: 5-6.5
Density (lbs/gal): 9.0
Particle Charge: Anionic
Tg C: 33
Water Resistance: Good
Uses: Hand builders
Advantages: Economical

AIR PRODUCTS AND CHEMICALS, INC.: VINOL Polyvinyl Alcohol for Warp Sizing:

VINOL polyvinyl alcohol--a synthetic polymer--is supplied as a free-flowing, granular powder. Polyvinyl alcohol is made by reacting polyvinyl acetate with methanol. As the polyvinyl alcohol forms, it precipitates from the methanol solution. Filtration, washing, and drying complete the process.

VINOL resins are manufactured in a wide hydrolysis range. In the partially hydrolyzed grades, 87 to 89 percent of the acetate groups present in polyvinyl acetate are replaced by alcohol groups; in the super hydrolyzed grades, more than 99.7 percent of the polymer is polyvinyl alcohol. In general, the more completely hydrolyzed VINOL polyvinyl alcohols are higher in tensile strength and have better abrasion and tear resistance than the partially hydrolyzed types. The partially hydrolyzed grades combine greater adhesion to hydrophobic yarns with increased solubility in cold water. All grades resist oils, greases, and organic solvents. Each grade is compatible with all others.

VINOL grades also differ in degree of polymerization (DP). This determines molecular weight. Changes in molecular weight affect solution viscosity. Therefore, the product DP is commonly specified by the viscosity of a water solution as low, medium, or high.

Viscosity Type:

Low:

DP: 500-700

MW-Viscosity Average: 22,000-31,000

Medium:

DP: 1750-1800

MW-Viscosity Average: 77,000-79,000

High:

DP: 2400-2500

MW-Viscosity Average: 106,00-110,000

Super Hydrolyzed Grades:

All super hydrolyzed grades have 99.7 percent minimum hydrolysis. These grades have the highest water resistance, strength, and abrasion resistance.

Fully Hydrolyzed Grades:

These non-gelling grades have a 98.0-98.8 percent hydrolysis range. Fully hydrolyzed grades are used for sizing spun synthetic yarns and synthetic/natural fiber blends.

Intermediately Hydrolyzed Grades:

These grades have a 95.5 to 96.5 percent hydrolysis range. Properties lie between those of the fully and partially hydrolyzed grades. Intermediately hydrolyzed grades are used for sizing all types of spun yarns.

Partially Hydrolyzed Grades:

Higher acetate content gives these grades greater cold water solubility and better adhesion to hydrophobic surfaces than the fully or intermediately hydrolyzed grades. Partially hydrolyzed grades are used in sizing filament yarns and in sizing spun yarns where desize is temperature limited.

AIR PRODUCTS AND CHEMICALS, INC.: VINOL Polyvinyl Alcohol for
Warp Sizing(Continued):

VINOL Specifications:

VINOL Grade:

Super Hydrolyzed:

VINOL 125:

Hydrolysis, %: 99.7 min.
Viscosity, cps: 28-32
pH: 6-8

VINOL 165:

Hydrolysis, %: 99.7 min.
Viscosity, cps: 55-65
pH: 6-8

Fully Hydrolyzed:

VINOL 107:

Hydrolysis, %: 98.0-98.8
Viscosity, cps: 5-7
pH: 5-7

VINOL 325:

Hydrolysis, %: 98.0-98.8
Viscosity, cps: 28-32
pH: 6-8

VINOL 350:

Hydrolysis, %: 98.0-98.8
Viscosity, cps: 55-65
pH: 6-8

Intermediately Hydrolyzed:

VINOL 425:

Hydrolysis, %: 95.5-96.5
Viscosity, cps: 26-30
pH: 5-7

Partially Hydrolyzed:

VINOL WS-51:

Hydrolysis, %: 87.0-89.0
Viscosity, cps: 4-6
pH: 5-7

VINOL WS-53:

Hydrolysis, %: 87.0-89.0
Viscosity, cps: 21-25
pH: 5-7

VINOL WS-55:

Hydrolysis, %: 87.0-89.0
Viscosity, cps: 40-50
pH: 5-7

ALBRIGHT & WILSON INC.: ANTIBLAZE 19 and 19T Flame Retardants:

ANTIBLAZE 19 flame retardant is a unique flame retardant additive for textile and plastic products.

CAS Nos.: 41203-81-0
42595-49-9

In addition to its high phosphorus content, ANTIBLAZE 19 has several outstanding characteristics:

- * Excellent thermal stability
- * Low volatility
- * Excellent retention and compatibility in many polymers

ANTIBLAZE 19T flame retardant is a special low viscosity grade of ANTIBLAZE 19 flame retardant formulated especially for textile treating requirements. ANTIBLAZE 19T flame retardant is formulated specifically for textile applications and is not suitable for use in polyurethanes or other plastic applications.

Typical Properties:

ANTIBLAZE 19 Flame Retardant:

Active Ingredient: 100%
Appearance: Clear, viscous liquid
Phosphorus (% by weight): 21.5
Acid Number, mg KOH/g: 2
Specific Gravity @ 25C: 1.28
Refractive Index nD 25C: 1.48
Viscosity (CPS, Brookfield)
20C(68F): 150,000
40C(104F): 15,000
60C(140F): 1,600
Flash Point (Setaflash Closed Cup): 146C (294F)

ANTIBLAZE 19T Flame Retardant:

Active Ingredient: 93%
Appearance: Clear liquid
Phosphorus (% by weight): 20.0
Acid Number, mg KOH/g: 25
Specific Gravity @ 25C: 1.27
Refractive Index nD 25C: 1.47
Viscosity (CPS, Brookfield):
20C (68F): 7,000
40C (104F): 1,000
60C (140F): 210
Flash Point (Setaflash Closed Cup): 181C (358F)

ALBRIGHT & WILSON INC.: Flame Retardants:**Product:****ANTIPLAZE 78:**

A chlorinated phosphorus ester

Uses: ANTIPLAZE 78 flame retardant is highly effective for rigid and flexible urethanes, bonded foam, semi-durable textile applications and phenolic-based laminates.

% P: 12%

% Cl: 34%

ANTIPLAZE 100:

A chlorinated phosphorus ester.

Uses: ANTIPLAZE 100 is used in both virgin and bonded flexible urethane foam. It provides a cost-effective means to pass Cal. 117 and other flammability tests. The low volatility of ANTIPLAZE 100 allows use in textiles, paper, adhesives, and epoxy and phenolic-based laminates.

% P: 10.6%

% Cl: 36%

ANTIPLAZE 19:

A neutral cyclic phosphorus ester.

Uses: ANTIPLAZE 19 is used for textiles and plastics including rigid RIM. Equivalent flame resistance may be achieved in many systems with significantly reduced loadings.

% P: 21%

ANTIPLAZE 19T:

A low viscosity modification of ANTIPLAZE 19.

Uses: ANTIPLAZE 19T flame retardant is used specifically for thermosol applications of polyester and other textile products.

% P: 20%

PROBAN CC:

65% active aqueous solution of tetrakis(hydroxymethyl) phosphonium chloride-urea precondensate.

Uses: Durable flame retardant treatment for cellulose.

For use by PROBAN licensees only.

% P: 10.0%

ALBRIGHT & WILSON INC.: Flame Retardants(Continued):

Product:

RETARDOL C:

80% tetrakis(hydroxymethyl) phosphonium chloride

Uses: Phosphonium-based flame retardant for cellulosics.

Is durable to washing.

% P: 13.0%

% Cl: 14.9%

RETARDOL S:

75% tetrakis(hydroxymethyl) phosphonium sulfate

Uses: Phosphonium-based flame retardant for cellulosics.

Is durable to washing.

% P: 11.4%

AMGARD CL:

Water-based ammonium polyphosphate flame retardant.

Uses: Flame retardant for cellulosics including textiles, paper, particleboard and timber.

% P: 13.1%

AMGARD TR:

Water-based ammonium polyphosphate

Uses: Flame retardant for cellulosic and other textiles, paper, board, and particleboard.

% P: 10.3%

ALBRIGHT & WILSON, INC.: Inorganic Chemicals:**Hypophosphorous Acid:**

Formula: H_3PO_2
Molecular Weight: 66
Grades: 50% solution

Typical Analysis:

Assay: 50.5%
 H_3PO_4 : 0.5%
Specific Gravity at 70F: 1.220

Uses: A monobasic acid with strong, but slow, reducing action. An antioxidant in manufacture of organic compounds, resins and fibers to improve color and color stability.

Monoammonium Phosphate:

Formula: $\text{NH}_4\text{H}_2\text{PO}_4$
Molecular Weight: 115.03
Grades: Technical, Food

Typical Analysis:

Tech Grade:
P205: 61.5%
NH3: 14%
Food Grade:
P205: 61.5%
NH3: 14.5%

Uses:

Technical grade used in manufacture of fire extinguisher powders, horticultural fertilizers, flame proofing of wood, paper, textiles, and intumescent paints, and in vitreous frits.

Food grade used as a mold culture nutrient in pharmaceutical manufacture and as a buffer, dough conditioner, and yeast nutrient in food and wine preparation.

Diammonium Phosphate:

Formula: $(\text{NH}_4)_2\text{HPO}_4$
Molecular Weight: 132.1
Grade: Technical, Food

Typical Analysis:

Tech Grade:
P205: 53.5%
NH3: 25%
Food Grade:
P205: 53.5%
NH3: 25%

Uses:

Uses include specialty fertilizers, powder for fire extinguishers, and for flameproofing fabrics, cotton fibers, wood, paper.

ALBRIGHT & WILSON, INC.: Organic Acid Phosphates:

Mobil organic acid phosphates are mixed mono- and dihydrogen phosphate esters containing varying amounts of polyphosphates. They are strongly acidic and form salts with alkalies and amines. Higher purity and lighter color are unique characteristics of these Mobil products. By the proper selection of chain length, solubilities for almost any system can be obtained. PA-75 is a 75:25 mixture of phenyl acid phosphate in butyl alcohol.

Uses:

*** Antistatic Agents:**

Amine salts of organic acid phosphates are finding use as antistatic agents for non-cellulosic fibers.

*** Flameproofing:**

High phosphorus content and resin compatibility of the organic acid phosphates indicate their usefulness as flameproofing plasticizers.

*** Catalysts**

*** Rust Inhibitors**

*** Mold Lubricants**

*** Leather Tanning**

*** Rubber**

*** Soldering Flux**

*** Asphalt**

Organic Acid Phosphates:

Butyl:

Appearance: pale yellow liquid

Specific Gravity: 1.13

Viscosity (Centistokes): 77F: 101

Isooctyl:

Appearance: pale yellow liquid

Specific Gravity: 1.02

Viscosity (Centistokes) 77F: 230

Phenyl:

Appearance: lt. tan solid

Specific Gravity: 1.284

Melting Point: 48C

Octylphenyl:

Appearance: lt. tan semi-solid

Specific Gravity: 1.080

Melting Point: 65C

PA-75:

Appearance: pale yellow liquid

Specific Gravity: 1.14

Viscosity (Centistokes) 77F: 49

ALBRIGHT & WILSON INC.: Surfactants:**Fatty Alcohol Sulfates:****Product:****EMPICOL AL30/T:**

Aqueous solution (28.5%) of ammonium lauryl sulfate

Uses: Primary active ingredient in shampoos and shower products.

EMPICOL AL70:

68% highly active ammonium lauryl sulfate.

Uses: For shampoos and shower products.

EMPICOL LX100:

High purity (97% active) sodium lauryl sulfate powder, USP/NF grade.

Uses: For high quality toothpaste and pharmaceutical preparations.

EMPICOL LXV100:

High purity (95% active) sodium lauryl sulfate in needle form. USP/NF grade.

Uses: For high quality toothpaste and pharmaceutical preparations.

EMPICOL LZ/E:

89% active sodium lauryl sulfate powder. USP/NF grade.

Low dusting.

Uses: Used as an emulsifier in the manufacture of plastics, resins and synthetic rubbers made by emulsion polymerization, as emulsifying or dispersing agents in textile printing pastes, and as dispersants/lubricants in the extrusion of PVC.

EMPICOL LZV/E:

90% active sodium lauryl sulfate needles. USP/NF grade.

Uses: Used as an emulsifier in the manufacture of plastics, resins and synthetic rubbers, made by emulsion polymerization, as emulsifying or dispersing agents in textile printing pastes, and as dispersants/lubricants in the extrusion of PVC.

EMPICOL 0303:

95% active sodium lauryl sulfate powder. USP/NF grade.

Uses: For dentifrice applications, emulsion polymerization, and pharmaceutical preparations.

EMPICOL 0303V:

94% active sodium lauryl sulfate needles. USP/NF grade.

Low dusting.

Uses: For dentifrice applications.

EMPICOL TL40/T:

Aqueous solution (41%) of triethanolamine lauryl sulfate.

Uses: For high quality shampoos and shower products.

ALBRIGHT & WILSON, INC.: Surfactants(Continued):

Fatty Alcohol Ether Sulfates:

Product:

EMPICOL EAC70:

Highly active (69%) ammonium lauryl ether sulfate.

Uses: For high quality shampoos and bath products.

EMPICOL ESB3:

EMPICOL ESC3:

Aqueous solutions (28%) of sodium lauryl ether sulfate.

Uses: For high quality shampoos and foam bath preparations.

Generates immediate, profuse and stable foam.

EMPICOL ESB70:

EMPICOL ESC70:

Highly active (6970%) sodium lauryl ether sulfates.

Uses: For high quality shampoos and foam bath preparations.

Generates immediate profuse and stable foam.

Alkylolamides and Alkoxylates:

EMPILAN CDE:

Coconut diethanolamide with a 1:1 molar ratio of diethanol amine to fatty acid.

Uses: Foam booster and stabilizer in shampoos, bubble baths, and liquid detergents.

EMPILAN CME:

Coconut monoethanolamide

Uses: Foam booster and stabilizer in liquid and powdered detergents also used in hair and carpet shampoos.

EMPILAN 2502:

Coconut diethanolamide with 1:1 molar ratio of diethanolamine to coconut oil.

Uses: Foam booster and stabilizer in shampoos and bubble baths.

EMPILAN LDE:

Lauryl diethanolamide with a 1:1 molar ratio of diethanol amine to fatty acid.

Uses: Foam booster and stabilizer in shampoos, bubble baths, and liquid detergents.

EMPILAN KM50:

Cetylstearyl alcohol condensed with 50 moles of ethylene oxide.

Uses: For cisterntype toilet cleaners and in cosmetic creams.

EMPILAN 0004:

Castor Oil: ethylene/propylene oxides condensate.

Uses: Specialty nonionic surfactant fully compatible with anionic or cationic types.

ALCO CHEMICAL CORP.: ALCOGUM Products:

ALCOGUM 6625:
6940:
6945:

ALCOGUM 6625 is a sodium polyacrylate thickener which finds extensive use in the thickening of natural and synthetic latexes for a wide variety of applications.

ALCOGUM 6625 and its dilutions, ALCOGUM 6940 and ALCOGUM 6945, may be used to thicken styrene-butadiene, acrylonitrile butadiene, neoprene, acrylic, vinyl acetate and ethylene-vinyl acetate latex compounds. In general they are most satisfactory thickeners for latexes which have an alkaline reaction although some success has been achieved in neutral or slightly acid systems.

ALCOGUM 6625 and its dilutions are used in a variety of applications including:

- | | |
|------------------|--------------------|
| * Carpet Backing | * Textile Coatings |
| * Latex Foam | * Nonwovens |
| * Adhesives | * Dispersions |
| * Emulsions | |

Physical Properties:**ALCOGUM 6625:**

Total Solids, +-1%: 15.0
pH: 11.0-13.0
Viscosity, cps: 50,000

ALCOGUM 6940:

Total Solids, +-1%: 12.0
pH: 11.0-13.0
Viscosity, cps: 15,000

ALCOGUM 6945:

Total Solids, +-1%: 10.0
pH: 11.0-13.0
Viscosity, cps: 10,000
Color: Clear to slightly opaque light colored liquid

ALCOGUM 9635:

ALCOGUM 9635 is a sodium polyacrylate thickener suitable for use in latex adhesives for the tufted carpet industry.

ALCOGUM 9635 can be used in most precoats, regular laminates and froth laminate systems.

Typical Properties:

Total Solids, %: 14.0
Appearance: opaque liquid
pH: 9.0
Viscosity, cps: 25,000

Meets Requirements of TSCA
CAS No. 9003-04-7

ALCO CHEMICAL CORP.: ALCOGUM Products(Continued):

ALCOGUM 9639-N:

ALCOGUM 9639-N is a new sodium polyacrylate thickener designed for use in textile coatings for upholstery.

Field experience and laboratory data indicate broad scale application and use in many different latex products where a long-leggy flow is desired.

Outstanding Features:

ALCOGUM 9639-N gives a smooth continuous flow in most upholstery latexes. ALCOGUM 9639-N shows good cost performance efficiency in most upholstery applications.

Typical Properties are as follows:

Total Solids, %: 10.0+-1.0
Appearance: Slightly hazy liquid
pH: 8-10
Viscosity, cps: 30,000

CAS No. 9003-04-7

ALCOGUM 9642:

ALCOGUM 9642 is a sodium polyacrylate thickener suitable for use in latex adhesives for the tufted carpet industry.

ALCOGUM 9642 can be used in most precoats, regular laminates and froth laminate systems.

Typical Properties:

Total Solids, %: 14.0
Appearance: Slightly opaque liquid
pH: 9.0
Viscosity, cps: 30,000

Meets requirements of TOSCA

CAS No. 9003-04-7

ALCOGUM 9701:

ALCOGUM 9701 is a sodium polyacrylate thickener suitable for use in latex adhesives for the tufted carpet industry.

ALCOGUM 9701 can be used in most precoats, regular laminates and froth laminate systems.

Typical Properties:

Total Solids, %: 14.0
Appearance: Opaque liquid
pH: 9.0
Viscosity, cps: 10,000

Meets Requirements of TOSCA

CAS No. 9003-04-7

ALCO CHEMICAL CORP.: ALCOGUM Products(Continued):**ALCOGUM 9710:**

ALCOGUM 9710 is a sodium polyacrylate thickener which can be used in the thickening of natural and synthetic latexes for a wide variety of applications.

ALCOGUM 9710 may be used to thicken styrene-butadiene, neoprene, acrylic, vinyl acetate and ethylene-vinyl acetate latex compounds. In general, it is a satisfactory thickener for latex which has an alkaline reaction although some success has been achieved in neutral or slightly acid systems.

ALCOGUM 9710 meets criteria of Code of Federal Regulation, Title 21, SS:

175.300

175.105

176.170

176.180

In addition, this product has also been disclosed to USDA as a thickener in coatings and adhesives in contact with fresh foods:

Typical Properties:

Total Solids, %: 12.0

pH: 12.0

Viscosity, cps: 50,000

Color: Clear to slightly opaque light colored liquid

CAS No. 9003-04-7

ALCOGUM 296-W:**Acrylic Thickener and Protective Colloid****Fields of Use:**

ALCOGUM 296-W is recommended primarily as a stabilizer, protective colloid, and thickener for water based systems, such as natural and synthetic rubber latices, and polymeric dispersions, such as polyvinyl acetate and polyacrylate emulsions. It possesses unique adhesive, suspending, emulsifying, and film-forming characteristics, making it ideal for any other industrial uses.

Typical Properties:

Solids Content: 14.7-17.2

Viscosity @ 25C: 13,000-26,000 cps

pH @ 25C: 8.3-10.8

Specific Gravity @ 25C: 1.070

Weight/U.S. Gallons @ 25C: 8.9 lbs.

ALCOGUM 296-W is a high viscosity aqueous solution of sodium polyacrylate. It is an anionic colloid furnished as a whitish colored homogeneous solution at 15% solids, ready for use.

ALCO CHEMICAL CORP.: ALCOGUM Products(Continued):

ALCOGUM VEP-I:

Viscoelastic Polymer

ALCOGUM VEP-I is a CAD designed sodium polyacrylate thickener. Its unique manufacturing process ensures a clean product.

Typical Properties:

Total Solids: 12.5+-1

pH: 9+-1.5

Viscosity, cps: 20,000-30,000

Color: clear to slightly opaque, light colored liquid

ALCOGUM VEP-I is a high viscosity aqueous solution of sodium polyacrylate. It is ready to use as received.

ALCOGUM VEP-I may be used to thicken styrene butadiene, neo-prene, acrylic, vinyl acetate, and ethylene vinyl acetate latex compounds. In general, it is a satisfactory thickener for latexes of alkaline pHs.

Some suggested applications for ALCOGUM VEP-I are:

Carpet Backing

Latex Foam

Adhesives

Emulsions

Textile Coatings

Nonwovens

Dispersions

Protective Colloid

Some of the outstanding properties of this water-soluble synthetic resin are:

Latex Thickening Action: immediate and extremely effective

High Viscosities at Low Concentrations

Ready-to-Use Liquid

Resistance to Mildew or Bacteria

Exceptional for Low Penetration Coatings

Exceptional Heat Stability

CAS No.: 9003-04-7

ALFRAMINE CORP.: AVASOL Multi-Purpose Cationic Surfactants:

AVASOLS are a range of cationic surfactants of the amide condensate class.

AVASOLS have been produced by Alframine Corporation for more than 40 years and find continued acceptance in various industrial applications as textile softening and finishing agents, dye fixatives, fiber static eliminators, emulsifiers, anti-stick agents, low-foam detergents, and yarn lubricants.

There are three AVASOLS, designed for the requirements of various users. AVASOL No. 10 is a light-bodied paste designed for optimum softening and lubricating properties. AVASOL No. 22 is a heavy-bodied paste recommended for treatment of white goods and static control. AVASOL W is a liquid which offers maximum color fixation, detergency, and surface coating potential.

All AVASOL types are water soluble and may be used in combination with metallic salts. When applied in conjunction with anionic compounds, solutions should have a pH below 7 to avoid possible precipitation.

The effective working concentration of AVASOLS is in the general range of 1.0-3.0% when used for fabric finishing; 0.5-1.0% for lubrication; 0.25-0.5% for dye fixation, static control, emulsification, and detergency.

Yarn application of AVASOLS may be made in the rinse bath after dyeing, at temperatures of 40C for about 20 minutes. The finish is resistant to laundering and dry cleaning and is suitable for cotton, wool, synthetics, and blends. Application should always be from a master batch to assure uniformity of treatment.

AVASOLS have been found effective anti-sticking and anti-static agents on resin sheetings when surface coated.

ALFRAMINE CORP.: ERNALTEX Semi-Finished Bases:

ERNALTEX products are a series of bases for the manufacture of cationic surfactants of the amide condensate class.

ERNALTEX bases are produced by Alframine Corp. for the preparation of textile softening and finishing agents, dye fixatives, fiber static eliminators, emulsifiers, anti-stick agents, low-foam detergents, and yarn lubricants.

There are three ERNALTEX bases: F, CS, and T. Reaction with acids such as acetic, lactic, formic, hydrochloric, etc. forms the desired end-product. ERNALTEX F reaction product may be used as a general-purpose textile softener and color fixative in neutral or acidic media. ERNALTEX CS reaction product is suitable for finishing white goods in neutral or acidic media. ERNALTEX T reaction product is an effective color fixative in alkaline as well as neutral or acidic media.

While ERNALTEX bases are water-insoluble, the end products are, of course, water-soluble and may be used in conjunction with starch, dextrine, fillers, etc. or further diluted with water.

ALLIED COLLOIDS INC.: Alphabetical List of Products:**ALCAMINE ACS 100% Flake:**

Cationic/Flake

Quaternary ammonium compound

Softener, antistat and processing aid for all fibres. Good non-yellowing properties therefore suitable for fibres which will ultimately be subjected to high temperatures. Minimises scorching of bleached cotton during heat setting up to 200C.

ALCAMINE AP:

Cationic/Emulsion

Blend of substituted amides and quaternary ammonium products.

Softener, antistat and lubricant for most fibres. It therefore finds many applications, e.g. as a processing lubricant for converting loose fibre and tow into yarn, as an antistatic knitting lubricant, as a raising agent for warp knit fabrics and as a general softener imparting good draping properties.

ALCAMINE CA New:

Cationic/Emulsion

Substituted stearamide

Softener and processing aid for synthetic and natural fibres. Used as a spin finish on acrylic fibres and as a softener on both natural and synthetic fibres. It is particularly effective on acrylics but gives a pleasing soft silky handle on nylon. It is recommended as the softener for chlorine/resin finished wool to overcome the harsher handle resulting from such processes, to aid processing and give a 'lofty' hand.

ALCAMINE CWS 100% Flake:

Cationic/Flake

Quaternary ammonium compound

Softener and antistatic agent for all fibres with good non-yellowing properties. Will minimise scorching of bleached cotton during heat setting. Readily diluted in water.

ALCAMINE DAS:

Cationic/Emulsion

Substituted Amide

Used as an alternative to ALCAMINE PF where a slightly less durable but cheaper finish is required for acrylic fibres.

ALCAMINE FPS:

Cationic/Emulsion

Substituted amide

High performance softener for all fibres. Gives good softness at low levels of addition. Stable to high temperatures giving excellent non-yellowing properties. Stable to basic dyebaths therefore can be applied to acrylics during dyeing. On nylon reduced snagging and good extension/recovery properties are achieved in addition to good softening.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCAMINE LS:

Cationic/Emulsion

A blend of amides and quaternary ammonium products.

Softening agent and antistatic processing aid for most fibres but particularly suitable for use on acrylics. It is stable to basic dyebath conditions and can therefore be applied to acrylic fibre or tow during dyeing giving a simple economical processing route for conversion into yarn.

ALCAMINE PF:

Cationic/Emulsion

Substituted amide

Excellent softener for synthetic fibres. If applied to acrylics at temperatures above 80C the very soft bulky handle is very resistant to repeated washing or dry cleaning. Applicable for boiling basic dyebaths. On other synthetic fibres it gives a semi-durable finish. Good non-yellowing properties.

ALCAMINE PF 100% Flake:

Cationic/Flake

100% version of ALCAMINE PF as yellow/brown flakes which can be converted to emulsion form by simply stirring into water set with 10 parts of glacial acetic acid per 100 parts of flakes at temperatures above 80C.

ALCAMINE RWT:

Cationic/Emulsion

Hydrophilic softener with good rewetting properties. Softens without impairing the absorbency of cotton towelling.

ALCAMINE 544 Special:

Cationic/Emulsion

Fatty acid amide

High performance softener for all fibres imparting a very soft handle to goods at low levels of addition. Good build up properties enabling the finisher to achieve softness unobtainable with many softeners. Applicable from basic dyebaths and acid dyebaths in the presence of a suitable anti-precipitant. Good non-yellowing and non-soiling properties therefore can be used safely on goods which will be heat treated such as nylon and polyester and also for carpet fibres.

ALCAMINE 544 Special 100% Flake:

Cationic/Flake

100% version of ALCAMINE 544 Special in the form of pale yellow flakes which can be readily converted into emulsion form by stirring into water at temperatures above 80C.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOFIX CU:**

Cationic/Powder
Amine polycondensation product with inorganic salts.
Afterfixing agent for improving the wet fastness properties of direct and copperable dyes and prints. Slightly hygroscopic.

ALCOFIX FD:

Cationic/Liquid
Amine polycondensation product
Afterfixing agent for improving the wet fastness properties of direct and reactive dyes on cellulosic fibres. Can be applied with 'easy care' resin finishes.

ALCOFIX FD 100% Powder:

Cationic/Powder
Concentrated version of ALCOFIX FD in the form of a readily water soluble powder and substituted in the ratio 1 part for 2 parts.

ALCOFIX NF:

Anionic/Liquid
Polycondensation product
Afterfixing agent for improving the wet fastness properties of polyamide fibres dyed or printed with acid dyes. The light colour of this compound results in minimal effect on bright shades or white grounds of printed fabrics. Used to reserve polyamide when dyeing cotton/polyamide blends with direct dyes.

ALCOFIX NF Conc. Powder:

Anionic/Powder
Readily soluble free flowing powder to be used in the ratio of 1 part ALCOFIX NF Conc. Powder to 2.5 parts of ALCOFIX NF.

ALCOFIX R:

Cationic/Liquid
Fixing agent for improving the wet fastness properties of cellulosic fibres dyed or printed with reactive dyes.

ALCOFIX S:

Anionic/Liquid
As ALCOFIX NF but exhibiting improved colour and mobility at low temperatures.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCOFIX S Conc. Powder:

Anionic/Powder

Readily soluble free flowing powder, 1 part being equivalent to ALCOFIX S.

ALCOLUBE BSL Conc. 200%:

Cationic/Emulsion

Blend of softeners and stitch lubricants.

Imparts a soft handle to all synthetic and cellulosic fibres together with excellent stitch lubrication properties thus overcoming damage associated with making up. It can also be used as a knitting lubricant. A special feature of this product is its excellent non-yellowing property.

ALCOLUBE BTB:

Cationic/Emulsion

Combined softener and stitch lubricant for all fibres.

ALCOLUBE CRA:

Nonionic/Emulsion

Polyethylene.

Excellent non-yellowing softener and lubricant for all fibres which does not impair wettability. Gives low fibre/metal and low fibre/fibre friction therefore aids such processes as back winding, knitting, deknitting, shearing and reduces needle damage during making up. Stable in resin formulations imparting softness with improved strength and abrasion resistance. Reduces chalking. Gives good stretch and recovery properties to nylon and elastomeric fibres. Softener for resin treated machine washable wool.

ALCOLUBE CRT Conc. 40:

Nonionic/Emulsion

Concentrated version of ALCOLUBE CRA.

ALCOLUBE G40:

Nonionic/Emulsion

Paraffin wax.

Processing aid and lubricant for natural and synthetic fibres. It imparts low fibre/metal and medium fibre/fibre coefficients of friction and is therefore highly effective in processing, raising rewinding and knitting, at the same time overcoming problems of needle damage in making up. Contains no mineral oils therefore leaves no sticky deposits and does not give rise to soiling if used as the recommended levels. Acts as an antcreasing aid during dyeing.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOLUBE NH Series:**

Nonionic/Liquid

Polyethylene glycol esters of fatty acids.

A range of 100% active liquid products which are good anti-stats and are particularly good raising assistants. The selection of the product will depend on the final handle required; the lowest member, ALCOLUBE NH2, giving a very scroopy handle, this effect decreasing with progression through the range to ALCOLUBE NH6 which gives a more neutral handle.

ALCOLUBE NSI:

Nonionic/Emulsion

Fatty acid/amine and silicone softener blend.

Excellent fibre lubricant and softener giving particularly good results on cotton and cotton/polyester blends. Helps to overcome stitch daamage which can occur during making up.

ALCOLUBE NS4 Paste:

Nonionic/Paste

Polyethylene glycol ester of a fatty acid.

Lubricant and antistatic agent particularly recommended for knife raising of surgical lint fabrics.

ALCOLUBE PKL:

Cationic/Emulsion

Paraffin Wax.

Knitting and stitching lubricant. Knitting yarns treated with this product during or immediately after dyeing can be knitted directly from the dyers package if this is maintained in good physical form. Even if rewinding and waxing is carried out ALCOLUBE PKL can further improve knitting and reduce needle damage during making up.

ALCOLUBE SCA:

Cationic/Emulsion

Substantive polyethylene

Excellent fibre lubricant and good nongreasy softener giving good back winding and deknit properties to yarns and good stitching, tearing and wearing properties to fabrics. Recommended for use on optically bleached yarns because of its good non-yellowing properties. Applicable to acrylic fibres from basic dyebaths and to nylon from exhausted anionic baths. On cotton it gives good rewet properties.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCOLUBE SLC:

Cationic/Emulsion

Special blend of softeners and lubricants designed to optimise the balance of frictional properties with respect to softening, stitch lubrication, raising of all fibres. Facilitates re-winding and knitting of cotton or blended yarns.

ALCOLUBE WLE:

Anionic/Liquid

Cost effective, water dispersible, antistatic lubricant for processing wool and synthetic fibres on the woollen system. May be used on either clean or greasy blends to impart the correct balance of frictional properties at low application levels. Improves the yield of short fibre blends by reducing fly waste and droppings.

ALCOLUBE WLS:

Nonionic/Liquid

Water soluble, antistatic lubricant for processing relatively clean fibres on the woollen system. Balanced frictional properties give improved fibre control in carding with film slubbings, reduced fibre breakage and more levels yarns.

ALCOLUBE 241:

Nonionic/Liquid

Self emulsifying lubricant for '2 for 1' twisting. Particularly suitable for application from a sintered interface on in-line lubricators. Imparts very low dynamic yarn/solid friction for trouble free high speed processing and controlled yarn/yarn static friction for good package stability.

ALCOLUBE 1375:

Cationic/Emulsion

Blended softeners and lubricants.

Imparts good softness to all synthetic and natural fibres together with excellent stretch recovery properties on knitted fabrics and hose. In addition it is a very effective stitch lubricant thus overcoming problems of needle damage.

ALCOPOL ASW:

Anionic/Liquid

Alkali stable surfactant.

Stable to hot and cold caustic liquors, silicates and hydro-sulphite. It is therefore used as a wetting and dispersing agent in such processes as partial mercerising, bleaching, boiling off, kier boiling and vat dyeing.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOPOL CPB:**

Nonionic/Liquid

Low foam detergent and wetting agent. Stable to acids and alkali's. Particularly suitable for preparation and hydrogen peroxide bleaching where it will promote improved levelness and excellent quality whites together with good rewettability. Free flowing liquid for use on metered supply systems.

ALCOPOL CWA:

Anionic/Liquid

Wetting agent, penetrant and detergent for use under alkaline conditions up to 8% caustic soda.

Recommended for use in kier boiling, bleaching vat dyeing and reduction clearing. Relatively low foaming.

ALCOPOL NFW:

Anionic/Liquid

Wetting and deaerating agent with antifoaming properties.

ALCOPOL O20:

Anionic/Liquid

Sodium dioctyl sulphosuccinate, wetting agent.

20% active. Extremely powerful wetting agent even under cold conditions. Recommended for kier boiling, in scouring, desizing, padding, printing or any process where rapid wetting and penetration are essential. Under strongly acid or alkaline conditions, particularly at elevated temperatures ALCOPOL O will hydrolyse but the products of hydrolysis are completely soluble and will not interfere with subsequent processing.

ALCOPOL O Conc. 60:

Anionic/Liquid

As ALCOPOL O20 but 60% active.

ALCOPOL O60PG:

Anionic/Liquid

As ALCOPOL O Conc. 60 but with a much higher flash point.

ALCOPOL O70PG:

Anionic/Liquid

As ALCOPOL O20 but 70% active and with a much higher flash point.

ALLIED COLLOIDS, INC.: Alphabetical List Of Products(Continued):

ALCOPOL PET:

Anionic/Liquid

Phosphate ester based detergent, wetting, emulsifying and dispersing agent. Highly versatile surfactant, particularly under alkaline conditions. Very effective in the preparation, bleaching, and dyeing of cotton and blends. Excellent emulsifier for synthetic spin finishes.

ALCOPOL PPE:

Anionic/Liquid

Concentrated version of ALCOPOL PET.

ALCOPOL S:

Anionic/Liquid

Blended organic sulphates and sulphonates.

General purpose wetting agent and detergent. Stable to acids, mild alkalies and hard water. It is recommended for use in scouring, bleaching, carbonising, chlorination and dyeing.

ALCOPOL SNW:

Anionic/Nonionic/Liquid

Blended surfactants.

General purpose wetting agent, penetrant and detergent. Stable to hard water and over a wide pH range i.e. 2 to 12, therefore suitable for most textile uses.

ALCOPOL 650:

Nonionic/Liquid

Ethoxylated detergent and wetting agent.

Outstanding wetting and scouring properties over a wide range of pH and temperatures. Helps attain high absorbency and rapid rewetting of fibres. Highly biodegradable. Used in scouring, sizing, desizing, carbonizing, shrink resist treatments, bleaching, carpet printing, dyeing and reduction clearing. Its rapid wetting properties and stability to a very wide range of conditions and chemicals make it a very useful product in continuous processing.

ALCOPRINT PBA:

Anionic/Emulsion

Polyacrylic binder for pigment printing.

ALCOPRINT PBB:

Anionic/Emulsion

Polyacrylic binder for pigment printing.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOPRINT PDN:**

Anionic/Liquid

Pigment dispersant for aqueous systems.

ALCOPRINT PEM:

Anionic/Nonionic/Liquid

Highly efficient emulsifier for white spirit in pigment printing.

ALCOPRINT PFR:

Liquid

Fixing agent for improving wet fastness properties of pigment prints.

ALCOPRINT PHL:

Nonionic/Liquid

Humectant

Additive to pigment printing pastes to increase the ease of cleaning of screens and prevent screen blockage.

ALCOPRINT PSM:

Nonionic/Emulsion

Softening agent for pigment printing. Improves colour yield and has no adverse effect on colour fastness. Low volatility reduces fuming at high curing temperatures.

ALCOPRINT PTF:

Anionic/Dispersion

Polyacrylic thickening agent for pigment printing. Can be used in emulsion systems but specially developed for use in completely aqueous systems.

ALCOPRINT PTG:

Anionic/Dispersion

Polyacrylic thickening agent for pigment printing. Specially developed for fully aqueous systems but may also be used in part emulsion systems. Does not require the addition of ammonia.

ALCOPRINT PTH:

Anionic/Dispersion

Modified Polyacrylic thickening agent for pigment printing. Eliminates flushing and poor fine line definition on pre-resinated, badly prepared, or synthetic filament fabrics. This product overcomes most of the problems associated with the gelling of pigment blacks.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCOPRINT RTA:

Anionic/Dispersion

Polyacrylic thickening agent for printing with reactive dyes.

ALCOPRINT TA Series:

A range of print table adhesives with superior technical properties which improve control of line and register when printing synthetic or blended fabrics. Available as ready to use solutions or as concentrates.

ALCOSET B Series:

Anionic/Emulsions

A range of self crosslinking formaldehyde free acrylic resins which impart different degrees of stiffness and improve fabric stability. Cured in a relatively short time above 150C to a wash resistant finish without catalyst.

ALCOSIST AN:

Anionic/Liquid

Blended sulphated ester

Levelling agent for dyeing nylon with the more sulphonated dyes and for covering barre'. Good wetting and detergency therefore useful in scour dye routines.

ALCOSIST BDR:

Cationic/Liquid

Quaternary ammonium compound

Very effective retarding/migration aid for dyeing acrylic fibres with basic dyes, particularly recommended for use with K2.5 to K5.0 colours. Low blocking action ensures good exhaustion and the ability to overdye. No effect on softeners applied from dyebath. Acts as an antiprecipitant when dyeing acrylic/nylon blends.

ALCOSIST M:

Cationic/Liquid

Quaternary ammonium compound

Migration aid for basic dyes on acrylic fibres. Can be used in conjunction with the other ALCOSIST products for dyeing acrylics. No effect on softeners applied from dyebaths.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOSIST NC:**

Cationic/Liquid
Ethoxylated amine
Levelling agent for controlling strike and aiding migration when dyeing nylon with acid dyes. Not generally recommended for use with premetallised dyes.

ALCOSIST NC 100%:

Cationic/Liquid
Concentrated version of ALCOSIST NC.

ALCOSIST NPS:

Anionic/Liquid
High molecular weight polycondensation product.
Reserving agent for the dyeing of nylon in blends with wool or cotton. Effective on all acid dyes including milling and premetallised.

ALCOSIST NPS Conc. Powder:

Anionic/Powder
Concentrated version of ALCOSIST NPS as a free flowing powder. Used at the rate of 1 part to 2-1/2 parts ALCOSIST NPS.

ALCOSIST NRL:

Cationic/Liquid
Quaternary ammonium compound.
Levelling agent for dyeing nylon or wool with acid and reactive dyes. Not recommended for use with premetallised dyes. Gives good contrast on differential dyeing nylons. Prevents redeposition of dyes when rinsing off wool and nylon prints and readsorption of colour during stripping.

ALCOSIST NRL Conc. 250:

Cationic/Liquid
As ALCOSIST NRL but 2-1/2 times the strength.

ALCOSIST PL:

Cationic/Liquid
Ethoxylated amine
Levelling agent for controlling strike and aiding migration when dyeing nylon and wool with all anionic dyes including premetallised. Maintains good colour yield.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCOSIST PL 100% Wax:

Cationic/Wax

Concentrated version of ALCOSIST PL.

ALCOSIST PN Flake:

Nonionic/Flake

Ethoxylated alkyl aryl compound.

Levelling agent and antiprecipitant for dyeing wool and nylon. Used when it is undesirable to have cationic levellers present or if carry over of traces of cations into subsequent treatments would be undesirable. It functions as an anti precipitant to enable acrylic/wool and acrylic/nylon blends to be dyed in a single bath.

ALCOSIST SCR:

Cationic/Liquid

Quaternary ammonium compound. Highly effective retarding/migrating aid for dyeing acrylic fibres with basic dyes, particularly recommended for use with low to medium K value colours.

ALCOSIST WNA:

Anionic/Liquid

Blocking agent used to produce solid shades when dyeing wool/nylon blends. Also used in wool/viscous dyeing.

ALCOSIZE Series:

Powders

A range of preblended sizes to satisfy any staple yarn requirement at a reasonable cost. The products are free flowing powders based on acrylic and other vinyl polymers blended with starch. Wax is included in appropriate products.

ALCOSOFT MAS:

ALCOSOFT MBS:

Nonionic/Emulsions

Modified aminosilicone softeners which impart a unique, luxuriant handle to polyester, cotton, polyester cotton, and nylon. A characteristic handle reminiscent of natural silk and a degree of softness far superior to conventional softeners is obtained.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOSPERSER AD:**

Anionic/Liquid

Polymeric dispersant and protective colloid for yarn and fabric preparation and bleaching. Minimises scale build-up on hot metal surfaces and fabric. Extremely efficient dispersant for cotton linters and particulate soil. Provides a cleaner fabric after washing-off without drainage marks. Improves absorbency and dyeing properties.

ALCOSPERSER BT:

Anionic/Nonionic/Liquid

Blend of levelling and dispersing agents. Carefully balanced blend to give excellent levelling and dispersion stability of disperse dyes at high temperature or under atmospheric conditions. Good wetting properties to reduce the risk of marking due to entrapped air in packages. Helps to reduce faults caused by oligomer.

ALCOSPERSER LFD:

Anionic/Liquid

Low foaming dispersing agent. Levelling agent for acid dyes on wool.

Excellent dispersing agent for all disperse dyeing systems and for vat dyeing where the dye is introduced as the dispersed vat pigment. Good levelling and retarding agent for acid and premetalised dyes applied to wool under acid, neutral or slightly alkaline conditions.

ALCOSPERSER LFD Conc. Powder:

Anionic/Powder

Non-dusting powder form of ALCOSPERSER LFD.

ALCOSPERSER LH:

Nonionic/Liquid

Surfactant blend. Levelling agent for dyeing nylon hosiery with disperse dyes. Its excellent penetrating and wetting properties promote level dyeing on tightly packed goods.

Excellent scouring and dispersing properties forming stable emulsions with processing aids, spinning oils, etc. and compatible with carriers therefore ideal for polyester dyeing.

ALCOSPERSER RJL:

Nonionic/Liquid

Polyethoxylated disperse dye levelling agent. Excellent levelling/dispersing agent developed specifically for use in the rapid high temperature dyeing of polyester. Very low foaming but contains no antifoam.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

ALCOSPERSER TL:

Nonionic/Liquid

Polyethoxylated disperse dye levelling agent.

Excellent levelling agent for disperse dyeing at atmospheric and high temperatures. Its solubilising effect on disperse dyes makes it a very efficient product for partially stripping and releveling faulty dyeings.

ALCOSTAT L:

Nonionic/Liquid

Ethoxylated fatty acid ester processing aid.

Lubricant and antistat for the processing of synthetic fibres and their blends. Improved fibre control gives level yarns, less fly waste and fewer roller laps. Excellent results have been achieved in open-end spinning of acrylic fibres treated with ALCOSTAT L where a marked reduction in accumulated 'trash' was noted. Good non-yellowing properties make it particularly suitable for use on propylene.

ALCOSTAT PB:

Cationic/Paste

Quaternised condensation polymer.

100% active. Excellent antistat with some softening effect.

Suitable for use on all fibres. Being strongly cationic it is substantive and can be applied by exhaust techniques in addition to pad and spray methods.

ALCOSTAT PB 25:

Cationic/Liquid

25% version of ALCOSTAT PB as a free flowing liquid.

ALCOSTAT S10:

Nonionic/Flake

Ethoxylated antistatic agent.

100% active. Antistatic agent for most fibres but particularly recommended for floorcoverings. Can be incorporated into the impregnating latex for needle punch carpets and the backing latex for tufted carpets. When used at the recommended levels has minimal effect on soiling. Also used as a warp size lubricant.

ALCOSTAT S10 40:

Nonionic/Liquid

40% version of ALCOSTAT S10 as an aqueous solution.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**ALCOSTAT 1586:**

Cationic/Liquid

Fibre substantive antistatic agent. May be applied from the exhausted dyebath or as an after-treatment. The product is also suitable for compounding into carpet latexes to give a conductive backing.

ALCOVAT PVP:

Nonionic/Liquid

Polymeric dye stripping agent.

Excellent stripping agent for vat, sulphur and direct dyes. Also used when washing off vat, reactive or acid dye prints to prevent staining of white or pale ground.

ALCOVAT VM:

Cationic/Liquid

Levelling agent for vat and sulphur dyes.

ALCOWAX OG:

Nonionic/Flakes

Self emulsifying sizing wax for all fibres.

ALCOWAX SB:

Nonionic/Wax

Self emulsifiable hydrocarbon.

White waxy flake recommended as an additive to size bath formulations and as an afterwax. ALCOWAX SB softens starch films, inhibits retrogradation of starch mixes and lubricates warp yarns thus improving the running of sizing machines and increasing weaving performance. Being water emulsifiable above 70C it is removed under conventional desizing conditions.

ALCOWAX S:

Nonionic/Flake

Water soluble ethoxylated size bath additive. Anstittatic softener/lubricant applicable from size baths. Improves both sizing and weaving. Being highly water soluble it is very easily removed from the fabric and is recommended in preference to other lubricants where there is a problem of removability of waxes.

ALLIED COLOIDS, INC.: Alphabetical List of Products(Continued):

ALQUEST NS:

Anionic/Liquid

Metal sequestrant for use under alkaline conditions.

Stable to strong alkalis therefore ideal for use as a sequestering agent for those textile processes carried out under strongly alkaline conditions. Particularly effective on ferric ions.

COLCAR EB:

Anionic/Liquid

Ester carrier.

Self-emulsifiable. Low odour, low volatility carrier for the dyeing of polyester and its blends at atmospheric boil and also at elevated temperatures. Promotes migration and has excellent levelling properties.

COLCAR HC New:

Anionic/Liquid

Hydrocarbon based carrier.

Self-emulsifiable. Highly cost effective carrier for dyeing modacrylic and polyester fibres and their blends. Gives low staining of wool when dyeing polyester/wool blends.

COLCAR TC:

Anionic/Liquid

Chlorinated benzene carrier.

Self emulsifiable. Gives good colour yield and levelness when dyeing polyester and its blends. It has minimal effect on light fastness and ensures low staining of wool when dyeing wool/polyester blends. Its use should be restricted to enclosed systems.

COLLASYN Series:

Powders

A range of sizing products based on polyvinyl alcohol. A special grade, COLLASYN 105 is designed particularly for the warp sizing of filament glass fibre to give excellent weaving performance consistent with complete removal in the coronising process.

COLSIZE NM:

Anionic/Powder

Blend of vinyl polymers with a small proportion of modified starch.

Particularly recommended for sizing synthetic and blended staple yarns but also suitable for use on cellulose. It has good adhesion to most fibres and dries to a tough flexible film. The product is water soluble and presents no difficulty in de-sizing.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**COLVINAL 226:**

Anionic/Powder

Vinyl copolymer size

Exhibits high adhesion to synthetic fibres and is particularly recommended for use on continuous filament acetate. In conjunction with starch, SMC or polyvinyl alcohol it is an excellent adhesion promoter for the sizing of staple synthetic fibres and their blends with cellulose.

DEFOAMER DS:

Nonionic/Liquid

Hydrocarbon based antifoam.

A water dispersible antifoam especially designed for use in aqueous systems. Does not contain silicone.

DEFOAMER ST:

Nonionic/Emulsion

Silicone based antifoam.

Highly effective antifoam agent which incorporates an efficient emulsifying system to ensure good storage properties and stable emulsions when diluted to stock or working conditions.

DEFOAMER ST Conc.:

Nonionic/Emulsion

Double strength version of DEFOAMER ST.

DEFOAMER 30:

Nonionic/Emulsion

Highly concentrated silicone antifoaming agent.

DISPEX A Wax:

Nonionic/Waxy Solid

Ethoxylated fatty alcohol

Readily soluble in water. Used as a general purpose wetting, scouring and dispersing agent. Also as a vat dye retarder, as an emulsifier for pigment printing and as an antistatic agent.

DISPEX AL Conc. 40:

Nonionic/Liquid

40% version of DISPEX A Wax

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

DRAFCOL A108:

Nonionic/Liquid

Ethoxylated fatty acid ester

Processing aid for natural and man-made fibres imparting low fibre to metal friction and medium to high fibre to fibre friction together with good antistatic protection, thus helping to achieve trouble free processing at each manufacturing stage. Fly waste and roller laps are reduced, a more level yarn is produced leading to a final fabric of good appearance manufactured at minimum cost.

DRAFCOL A8:

Nonionic/Liquid

25% version of DRAFCOL A108 Conc.

DRAFCOL S6H:

Nonionic/Liquid

Ethoxylated fatty acid ester.

Water soluble fibre processing aid which imparts low fibre to metal and medium to high fibre to fibre friction together with good antistatic properties. DRAFCOL S6H is recommended for use on man-made fibres and their blends on a wide variety of processing systems.

DRAFCOL WLA:

Nonionic/Anionic/Liquid

Blended processing aid for wool.

Intended as a replacement for oleine based lubricants to overcome disadvantages such as smell, yellowing, smoking during drying and poor removability.

POLYMER 399:

Nonionic/Liquid

Water soluble acrylic polymer lubricant.

Helps to prevent the formation of creases and running marks when dyeing knitted and lightweight woven fabrics. It also improves abrasion resistance and sewability.

SAPOLIB A50:

Anionic/Liquid

Blend of solvents and detergents.

Assistant for the cleaning of screens after printing with pigments or disperse colours.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**SAPOLIB S:**

Anionic/Liquid

Blend of solvents and detergents.

General purpose scouring agent especially suitable for the removal of severe staining. Not recommended for use on cellulose acetate or blends containing this fibre.

SOFTENING AGENT LNS:

Nonionic/Liquid

Substituted amine based softening agent.

Imparts a soft, lofty, non-greasy handle to textile fibres. Excellent non-yellowing properties and no effect on dyed shades therefore especially suitable for application to pastel shades and optic whites. Can be applied from resin baths.

SOFTENING AGENT LNS/100% Flakes:

Nonionic/Flake

Concentrated version of SOFTENING AGENT LNS in the form of cream coloured flakes.

Used in the ratio of 1 part LNS 100% Flakes to 5 parts LNS. Readily diluted in hot water.

SOFTENING AGENT SME New:

Anionic/Paste

Substituted stearic sulphosuccinate softening agent.

Imparts a smooth soft handle to cotton and viscose, also applicable from resin baths. Can be applied to wool and is particularly recommended for use in the Hercosett Process. SOFTENING AGENT SME New can be used on all synthetic fibres and is of particular value where cationic softeners are undesirable.

STABICOL A:

Anionic/Liquid

Blend of stabilisers and sequestrants for use in hydrogen peroxide bleaching.

Ensures stability of hydrogen peroxide and controlled bleaching resulting in an excellent white, minimum loss of yarn strength, no pinholing and economical use of hydrogen peroxide. It contains no silicate therefore problems associated with silicate e.g. harsh fabric, variable wetting and dyeing and build up on machines, are eliminated.

STABICOL A Conc. Powder:

Anionic/Powder

Concentrated version of STABICOL A.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

STABICOL SD New:

Anionic/Liquid

Blend of stabilisers, sequestrants and surfactant for use in hydrogen peroxide bleaching.

Wetting and detergency properties give rapid wetting, effective wax removal and good fabric rewettability whilst controlling the peroxide bleaching. Contains no silicate.

SYNCOL FM:

Anionic/Liquid

Modified acrylic acid size.

A modified version of SYNCOL F containing an emulsified lubricant. Can be employed where after-lubrication facilities are not available or where the application of a lubricant in the size solution is preferred.

SYNCOL FST:

Anionic/Liquid

Modified polyacrylic acid size for continuous filament nylon.

Prevents the build-up of electrostatic charge during rebeaming on warper/sizer systems. Minimises contamination due to fly waste when weaving staple yarn weft into filament wraps.

SYNCOL F25:

Anionic/Liquid

Polyacrylic acid size.

Clear viscous aqueous solution. Highly effective size for filament polyamide yarns. SYNCOL F25 exhibits very high adhesion to polyamide fibres producing warps of high weaving efficiency at relatively low application levels.

SYNCOL F40:

Anionic/Liquid

Concentrated, slightly lower molecular weight version of SYNCOL F25.

Imparts improved fabric cover.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**SYNCOL 2482:**

Anionic/Liquid

Acrylic acid based size.

Clear viscous aqueous solution. Like SYNCOL F this product gives extremely efficient weaving at low applications. It is particularly recommended for Nylon 6 where it helps to eliminate yarn sticking and size deposits during weaving.

SYNCOL NWJ:

Anionic/Dispersion

Acrylic copolymer size.

Opaque free flowing aqueous dispersion designed for sizing continuous filament nylon yarns to be woven on water jet looms. Highly efficient product for most difficult fabrics such as computer tapes.

TESCOL BPJ:

Anionic/Liquid

Acrylic copolymer size.

Recommended for flat and texturised polyester filament yarns which are to be woven on projectile or air-jet looms. Suitable for low twist yarns providing excellent protection against filamentation and producing warps of first class weavability.

TESCOL BPS:

Anionic/Liquid

Acrylic copolymer size.

Slightly opaque aqueous solution developed specifically for the sizing of continuous filament polyester yarns for weaving on all types of looms including water-jet. May also be used on nylon and acetate.

TESCOL PD53:

Anionic/Powder

Blend of vinyl copolymers.

A versatile size particularly suitable for texturised continuous filament polyester yarns. Produces a tough resilient film with good adhesion to polyester thus reducing the tendency for size to shed from the yarn during weaving whilst eliminating the problem of sized threads sticking to each other or to the beam.

TESCOL R265:

Anionic/Liquid

Acrylic copolymer size.

White opaque aqueous solution. Recommended for use on continuous filament acetate and polyester yarns for weaving in both water jet and conventional looms.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

TESCOL 129:

Anionic/Liquid

Specialty product for bonding polyester sewing threads.

Exhibits very high adhesion to polyester imparting excellent cohesion. Dries to a slightly tacky film which improves package build and stability.

TETRALON ACID:

Anionic/Powder

Ethylene diamine tetracetic acid.

White crystalline powder, 99 to 100% active. Sequesters metal ions in aqueous solutions over a fairly wide pH range rendering them soluble in conditions which would normally lead to precipitation of their metallic salts. The adverse effects of small concentrations of metal ions such as calcium, magnesium, iron and copper are thus successfully eliminated. Tetralon acid neutralised with a suitable base is used where maximum purity or freedom from sodium ions is desired.

TETRALON A:

Anionic/Liquid

Tetra sodium salt of ethylene diamine tetracetic acid.

40% aqueous solution. Sequesters metal ions as described for TETRALON ACID above and would be chosen for economy and where liquids are suitable.

TETRALON B:

Anionic/Liquid

Tetra sodium salt of diethylene triamine pentacetic acid.

40% aqueous solution. Can be used in place of TETRALON A to give even better sequestering and greater complex stability. It is particularly recommended for peroxide bleaching.

TETRALON SP Powder:

Anionic/Powder

Partially neutralised ethylene diamine tetracetic acid.

White powder dissolving to give a neutral solution of disodium EDTA. Selected for dry mixing or when a powder product is preferred or when strongly alkaline conditions are to be avoided.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**THERMACOL AM:**

Anionic/Liquid

Polymeric dye migration inhibitor.

Dye migration inhibitor for overcoming the movement of dyes on fabric during drying in the Pad-Thermasol Process. Additions of THERMACOL AM to the pad liquor when dyeing polyester and cotton/polyester with disperse dyes and vat pigments will minimise centre to selvedge and back to face variations.

THERMACOL NR:

Nonionic/Liquid

Polymeric dye migration inhibitor.

Used in conjunction with resins where the anionic products such as THERMACOL AM could destabilise the baths.

VICOL A:**VICOL T:****VICOL R:****VICOL VL:**

Anionic/Powders

Acrylic copolymer sizes supplied as free flowing white powders. The products dissolve readily in water to give size solutions of very low through to very high viscosity depending on grade. The lowest viscosity grade is particularly well suited to the demands of high pressure squeeze sizing, or for sizing filament viscose. All the products can be used alone or in conjunction with starch to size cotton or blended yarns, imparting high weaving efficiencies. In many cases the fabric may be bleached or dyed without removing the size.

VICOL N40:

Anionic/Liquid

Acrylic copolymer size.

A highly effective aqueous solution giving high weaving performance at low application levels on continuous filament viscose yarns. Readily removed in a neutral or mildly alkaline scour. Dyeing can be carried out without desizing.

VICOL PC:

Anionic/Powder

Acrylic copolymer size.

An off-white free flowing powder which dissolves in water to give low viscosity size solutions particularly effective for synthetic staple yarns and blends. It can be used alone or in conjunction with starch or C.M.C. One particular advantage over other acrylic sizes is that it can be used as the single ingredient of a size mix where Relative Humidities are high.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):

VICOL WLV:

VICOL WMV:

VICOL WHV:

Anionic/Powder

Acrylic polymer sizes

These products are neutral, water soluble polymers covering a range of solution viscosities (L=Low, M=Medium, H=High). They have good adhesion to most fibres and provide a high degree of abrasion resistance. The VICOL W series of products are much less affected by high weave room humidity than many other acrylics. They are completely soluble in hot water and present no difficulty in de-sizing.

VICOL 515:

Anionic/Liquid

Acrylic copolymer size.

Suitable for application to a wide range of staple yarns. It can be used alone or as a partial replacement for starch. Because of its high adhesive power and low application levels much reduced dust levels can usually be achieved. VICOL 515 is also suitable for use in certain size recovery systems.

VISCALEX Range:

A versatile group of highly effective acrylic thickening agents for use in aqueous adhesives and latex coatings. Suitable for use with many latex types including natural rubber, S.B.R., PV acetate, PVC, Polychloroprene, acrylic and nitrile.

VISCALEX AH 15:

Anionic/Gel

Pale yellow gel. Can be added directly to latex formulations if good compounding equipment is available but generally it is prediluted with 2 parts water in a low shear mixer.

VISCALEX AT11:

Anionic/Emulsion

VISCALEX AT22:

Nonionic/Emulsion

VISCALEX AT33:

Anionic/Emulsion

Water soluble thickeners, designed specifically for the water based adhesive and latex compounding industries, supplied as frost stable low viscosity high solids dispersions.

They produce rapid, efficient thickening when added to aqueous formulations without the necessity of added alkali. VISCALEX AT11 is particularly suitable for textile backing compounds including those used on carpets.

ALLIED COLLOIDS, INC.: Alphabetical List of Products(Continued):**VISCALEX EM15:**

Anionic/Emulsion

White acidic free flowing emulsion therefore easy to handle.

Viscosity will develop when added to alkaline mixes whereas neutral and acidic compounds will require the addition of a suitable alkali.

VISCALEX G10:

Anionic/Gel

Colourless viscous, but not stringy, gel.

However it blends very easily and can be added direct to formulations.

VISCALEX HV30:

Anionic/Emulsion

White fluid acrylic copolymer emulsion of very fine particle size. VISCALEX HV30 is a highly thixotropic thickener producing non-stringy, high viscosity compounds which are easy to spread but tend not to penetrate the substrate.

ALUCHEM, INC.: Hydrated Alumina:

Flame retardant and smoke suppressant fillers in a variety of organic coatings used for textile products.

Grade Nomenclature:

Sintered White Hydrated Alumina

Designated by the number "1" or the letter "W" appearing in the last position of the grade number/letter sequence.

Bayer Off-White Hydrated Aluminas:

Designated by a "zero" or the letters "K" or "M" appearing in the last position of the grade number/letter sequence. The "M" series designation indicates standard chemical purity. The "K" series designation indicates lower levels of iron and soluble soda.

Series Numbers:

30 Series: Designates unground/screened products.

400 Series: Designates roller milled products; the lower the number the finer the grind.

700 Series: Designates air attrition milled products; the lower the number the finer the grind.

General Characteristics:

Chemical Formula: $\text{Al}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$ or $\text{Al}(\text{OH})_3$

Specific Gravity: 2.42

Decomposition Temperature: 220C

Refractive Index: 1.57

Mohs' Hardness: 2.5-3.5

pH (10% Slurry): 8-10

Appearance: Crystalline Powder

Typical Chemical Compositions:

Sintered Hydrates:

Color: White

Color Reflectance: 93-98

Al_2O_3 , %: 65.0

L.O.I. (1100C), %: 34.5

Bayer Hydrates:

K Series:

Color: Off-White

Color Reflectance: 85-95

Al_2O_3 , %: 65.0

L.O.I. (1100C), %: 34.5

M Series:

Color: Off-White

Color Reflectance: 80-92

Al_2O_3 , %: 65.0

L.O.I. (1100C), %: 34.5

ALUCHEM, INC.: Hydrated Aluminas(Continued):

Typical Physical Properties:

Unground:

AC-31C:

Screen Analysis:

% on 325 Mesh: 80-98

% through 325 Mesh: 2-20

AC-30M:

Screen Analysis:

% on 325 Mesh: 85-95

% through 325 Mesh: 5-15

AC-31: -325 Mesh, %: 30-75

Coarse Grind:

AC-470:

Screen Analysis:

% on 325 Mesh: 30-35

% through 325 Mesh: 65-70

AC-450:

Screen Analysis:

% on 325 Mesh: 20-25

% through 325 mesh: 75-80

Median Particle Size, Microns: 17-20

AC-460:-325 Mesh, %: 70-75

AC-480:-325 Mesh, %: 60-65

Intermediate Grind:

AC-441:

Screen Analysis:

% on 325 Mesh: 15-20

% through 325 mesh: 80-85

Median Particle Size, Microns: 15-18

AC-430:

Screen Analysis:

% on 325 Mesh: 10-15

% through 325 mesh: 85-90

Median Particle Size, Microns: 13-16

AC-431: -325 Mesh, %: 85-90

AC-440: -325 Mesh, %: 80-85

ALUCHEM, INC.: Hydrated Aluminas(Continued):

Fine Grind:

AC-420:

Screen Analysis:

% on 325 Mesh: 5-10

% through 325 Mesh: 90-95

Median Particle Size, Microns: 11-14

AC-410:

Screen Analysis:

% on 325 Mesh: 2-5

% through 325 Mesh: 95-98

Median Particle Size, Microns: 9-12

AC-400:

Screen Analysis:

% on 325 Mesh: <0.5

% through 325 Mesh: 99.5+

Median Particle Size, Microns: 7-10

AC-401: -325 Mesh, %: 99.5+

Median Micron: 7-10

AC-411: -325 Mesh, %: 95-98

Median Micron: 9-12

AC-421: -325 Mesh, %: 90-95

Median Micron: 11-14

Superfine Grind:

AC-722K:

Screen Analysis:

% on 325 Mesh: 0.01

% through 325 Mesh: 99.99

Median particle Size, Microns: 3.5-4.5

AC-714K:

Screen Analysis:

% through 325 Mesh: 100

Median Particle Size, Microns: 3.0-3.5

AC-712K:

Screen Analysis:

% through 325 Mesh: 100

Median particle Size, Microns: 2.5

AC-720 (K,M or W): Median Micron: 3.5-4.0

AC-740 (K,M or W): Median Micron: 6.0-7.0

AMERICAN HOECHST CORP.: Bleaching Agents & Auxiliaries:**LEONIL EB:**

Oxidative rapid desizing and wetting agent for woven fabrics made from cellulosic fibers and their blends with synthetic fibers.

Composition: Stabilized solution of an oxidizing agent in surfactants

Typical Properties:

Appearance: pourable paste

Ionicity: anionic

Solubility: Soluble in 4-5 times the amount of water at 50C

Uses:

LEONIL EB is used in combination with an alkaline treatment as a desizing agent for the breakdown of natural and modified starches, polyvinyl alcohols and other sizing agents on woven fabrics made from cellulosic fibers, synthetic fibers, and their blends.

The excellent wetting action of LEONIL EB results in very good wetting out even in loom-state fabrics and rapid penetration of the size film.

If LEONIL EB is used, a separate enzymatic desizing process can usually be omitted, thus effecting considerable savings in time, energy and water.

POLYRON CB:

Activator and Stabilizer for Sodium Chlorite Bleaching

POLYRON CB is an additive used in sodium chlorite bleaching in order to activate the process without the addition of acid, to prevent odor nuisance, corrosion, and to increase the whiteness.

Composition:

Combination of organic and inorganic salts with surface active compounds

Typical Properties:

Appearance: white, slightly hygroscopic powder

Ionic character: anionic

Solubility: easily soluble in cold water

Uses:

POLYRON CB contains acid-cleaving salts and possesses a buffer action. The requisite pH value of the bleach liquor is automatically adjusted without the addition of acid and is maintained constant throughout the entire bleaching process. POLYRON CB largely prevents the release of chlorine dioxide, thereby virtually eliminating all odor nuisance.

POLYRON CB also contains highly effective corrosion inhibitors. POLYRON CB enables a highly effective bleaching process without side-reactions, so that excess amounts of chlorite are not necessary.

**AMERICAN HOECHST CORP.: Bleaching Agents & Auxiliaries
(Continued):**

POLYRON KB:

Additive for the alkaline boil

The use of POLYRON KB during the alkaline boil improves the effects of the process in many respects:

- improved wettability of the fabric
- better whiteness of the fabric
- less fiber degradation
- very even preparation for dyeing

POLYRON KB also prevents fiber damage during the caustic/hydro stripping method of dyed cellulosic fibers.

Composition:

Mixture of organic and inorganic compounds

Typical Properties:

Appearance: clear, slightly amber liquid

Ionic character: anionic

Reaction: alkaline

Solubility: can be mixed with water in any proportion

Uses:

POLYRON KB is a special product for the pretreatment of cellulosic fiber and its mixtures. The sequestering action upon alkaline-earth metals and heavy metal ions is very effective in the high alkaline region.

POLYRON PB:

Organic stabilizer for silicate-free peroxide bleaching

POLYRON PB stabilizes alkaline peroxide bleach liquors. There is no risk of sedimentation occurring as in the case when such bleach liquors are stabilized with sodium silicate. Many problems related to the formation of silicate deposits on the fabric or on the equipment are thus eliminated.

Composition:

Mixture of organic and inorganic compounds

Typical Properties:

Appearance: clear, amber liquid

Ionic character: anionic

Reaction: alkaline

Solubility: can be mixed with water in any proportion

Uses:

In addition to the stabilizing action essential to effective bleaching, POLYRON PB has an exceptionally high sequestering capacity for heavy metal ions and prevents catalytic damage.

AMERICAN HOECHST CORP.: Bleaching Agents & Auxiliaries
(Continued):

Sodium Chlorite HOECHST:

Bleaching, disinfecting and oxidizing agent.

Composition:

Sodium Chlorite HOECHST 25K Liquid:

Sodium chlorite	25% (by weight)
Sodium nitrate	5%
Inserts (sodium salts)	1%
Water	69%

Sodium Chlorite HOECHST 50K Powder:

Sodium chlorite	50-51%
Sodium nitrate	35% minimum
Inserts (sodium salts)	15% maximum

Sodium Chlorite HOECHST 80K Powder:

Sodium chlorite	80-81%
Sodium nitrate	15-17%
Inserts (sodium salts)	2- 5%

Typical Properties:

Appearance: 25K: clear, slightly yellow liquid

50K/80K: white, odorless powder

Solubility: the powder types are soluble up to 800 g/l
in water of 70F

Reaction of the aqueous solution: alkaline

Stability of the aqueous solution: alkaline stock solutions
are stable

Resistance to hard water: resistant to any degree of water
hardness

Compatibility: The dry product or concentrated solution
should not be mixed with reducing substances.

Application:

In the textile industry, because of its intense, but nevertheless fiber protecting, bleaching effect, Sodium Chlorite HOECHST is used for bleaching nearly all natural and synthetic fibers. The effects on synthetic fibers, e.g., polyamide, polyester, and polyacrylonitrile are extremely good and cannot be obtained by other bleaching products which are used in the textile industry.

During the bleaching process, an auxiliary is used to control the chemical reactions and to prevent undesired side effects. The POLYRON CB process is recommended.

AMERICAN HOECHST CORP.: Dye Fixatives:

CASSOFIX CA:

CASSOFIX CA is a cationic aftertreating agent designed to improve the wet fastness, wash fastness, and perspiration fastness of cellulosic fibers dyed with Direct, Reactive, Sulfur, Diazo, and Coupling dyesuffs with minimum light fastness degradation and shade change.

Composition: aliphatic polyamine

Typical Properties:

Appearance: clear amber liquid
Ionic character: cationic

Uses:

The application is usually done in the last rinse bath after dyeing.

In printing, the staining of discharge effects can be prevented by treating ground shades with this product. CASSOFIX CA is stable to steaming.

CASSOFIX FRN-300 Hi. Conc.:

CASSOFIX FRN-300 Hi. Conc. is a cationic, resinous type of aftertreating agent. The product improves the wet fastness, wash fastness, and perspiration fastness of cotton, rayon, and blends with synthetic fibers dyed with Direct, Acid, and Reactive dyestuffs.

Typical Properties:

Appearance: clear amber liquid
Composition: amino-aldehyde condensate
Ionic Character: cationic

CASSOFIX TW:

CASSOFIX TW is a cationic aftertreating agent that markedly improves the wet and perspiration fastness of direct colors (substantive dyes) on cotton, rayon, or other cellulosic fibers.

CASSOFIX TW improves the wet fastness with a minimum adverse effect on the light fastness and minimum shade change of the dyed material.

For maximum improvement of the wash fastness Hoechst recommends different CASSOFIX types.

CASSOFIX TW is formaldehyde free.

Composition: aliphatic polyamine

Typical Properties:

Appearance: tan opalescent liquid
Ionic Character: cationic
Solubility: readily soluble in water in all proportions

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries:**CASSULFON Laking Agent PF:**

CASSULFON Laking Agent PF is a unique product for the after-treatment of sulfur dyes. During aftertreatment, a chemical bond with the sulfur dyestuff, undergoing cross-linkage by alkylation, takes place.

Composition: polyamine condensate

Typical Properties:

Appearance: reddish brown liquid

Ionic Character: cationic

Uses:

The CASSULFON Laking Agent PF/Hydrogen Peroxide development method results in the following advantages:

- Wash fastness at least equal to other methods, including the bichromate/acetic acid method.
- No equipment deterioration or corrosion
- no effluent problems
- brighter shades
- full development of all shades
- Better crock fastness, especially dry crock
- Soft hand with good sewing properties
- Better absorbency of material

Improvement of (peroxide) wash fastness

EGANAL PSA Conc.:

EGANAL PSA Conc. with its specific leveling mechanism, prevents unlevel dyeings even under the most strenuous conditions, i.e. during rapid dyeing procedures.

Typical Properties:

Appearance: yellowish, slightly viscous liquid

Composition: linear polycondensate

Ionic Character: nonionic

Application:

EGANAL PSA Conc. is used during the dyeing of polyester fibers and its blends with cellulose and wool under HT dyeing conditions.

By its specific action EGANAL PSA Conc. prevents unlevel dyeings due to different strike rates of dyes or preferential absorption to various parts of the fiber.

**AMERICAN HOECHST CORP.: Dyeing & Printing Auxiliaries
(Continued):**

EMIGEN DPR-A:

Appearance Enhancer

EMIGEN DPR-A is a dyestuff padding additive with properties that produce a better fabric appearance. The product also prevents "frosting" effects and increases selectively the color depth of disperse and pigment dyes.

Typical Properties:

Appearance: clear, colorless, viscous liquid

Composition: copolymer

Ionic Character: weakly anionic

Uses:

EMIGEN DPR-A is used on cellulosic fibers as well as their blends, i.e. with polyester. There is no restriction to the dyestuff classes used.

In cold pad-batch dyeing of cotton knit goods with REMAZOL dyes, EMIGEN DPR-A is used to increase the pick-up in combination with the wetting agent and to prevent the uneven distribution of the dyes solution during the reaction time. The appearance of the fabric is generally improved.

In the continuous dyeing of blends with uneven dye absorption, the EMIGEN DPR-A prevents a "skittish" appearance.

EMIGEN DPR-A performs in various other fields of continuous application where dyestuffs are unevenly absorbed.

EMULSIFIER EL:

Emulsifier EL is a highly effective dispersant/emulsifier. Its use significantly reduces cross-staining and surface dyeing. As a scavenger during afterscouring of printed and dyed fabrics, the product removes surface dye and prevents its redeposition.

Composition: fatty acid polyglycolester

Typical Properties:

Appearance: yellowish, slightly viscous liquid

Ionic Nature: nonionic

Activity: essentially 100% active

Uses:

- in continuous scouring of dyed synthetic fibers and blends
- in the dyebath to reduce cross-staining
- in continuous afterwashing of prints
- During intermediate and afterscouring of dyeings

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

HOSTATEX LO:

HOSTATEX LO is a readily emulsified low odor carrier for atmospheric dyeing of polyester fibers. Excellent color yield and leveling are obtained with low use levels of HOSTATEX LO.

Typical Properties:

Appearance: clear liquid
Color: slightly yellow
Chemical Type: liquid biphenyl
Ionicity: chiefly nonionic

Major Advantages:

- * low odor
- * low cost
- * high yields with low carrier concentrations
- * readily emulsifiable
- * excellent leveling

HOSTATEX LO exhibits excellent leveling properties under atmospheric dyeing conditions. Excellent dye levels with no adverse effect on light fastness are produced.

HOSTATEX LO emulsifies spontaneously in cold water.

HOSTATEX L-PEC:

HOSTATEX L-PEC is a readily emulsified carrier for high temperature dyeing, in particular, for package dyeing machines. Excellent color yield and leveling are obtained.

Composition: Emulsified blend of carrier-active substances

Typical Properties:

Appearance: clear, liquid
Color: slightly yellow
Chemical Type: trichlorobenzene

Uses:

A balanced blend of chlorinated solvents and perchloroethylene, HOSTATEX L-PEC maintains all the advantages of the Solvent Emulsion System and adds the feature of full yield of dyestuffs at lower temperatures and excellent leveling properties.

Further:

1. No prescour necessary.
2. Brighter shades.
3. Good crock fastness; eliminates reductive after-treatment in nearly all cases.
4. Leaves dyeing equipment clean; no wall deposits.
5. Only one type emulsifier is present, therefore, avoiding possible incompatibility with disperse dyes.
6. No smoking caused by evaporating knitting oil during heat setting.
7. Spot dry cleaning can be done without danger of haloing.

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

LEOMIN H Liquid:

Multi-purpose, high temperature dyeing assistant for polyester fibers.

Characteristics:

Appearance: light brown, slightly viscous liquid

Composition: fatty acid polyglycol ester

Activity (%): 100

Ionicity: nonionic

Uses:

LEOMIN H Liquid is normally used in the dyeing process of polyester fibers. However, its many properties (i.e., Lubrication) makes the product also very useful in dyeing processes of other fibers.

LEOMIN H Liq. has the following properties:

- * leveling
- * dispersing
- * trimer control
- * lubrication
- * prevents crease marks
- * non-foaming

LEOMIN HNF:

Universal dyeing assistant with defoaming properties for jet dyeing of polyester fibers and blends. The product is also successfully used in other dyeing procedures where its properties are beneficial, (i.e., lubricating, defoaming).

Composition: fatty acid ester

Typical Properties:

Appearance: light brown, slightly viscous liquid

Activity: 100% active

Ionic Character: nonionic

Uses:

LEOMIN HNF is used in jet dyeing of polyester fibers. The product has the following properties:

- * leveling
- * dispersing
- * lubrication (prevents crease marks)
- * trimer control
- * defoaming

Thus, the product eliminates the use of various dye additives, including leveling agents, defoamers, carriers, etc.

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

REMOL ANL:

Acrylic Leveling Agent

REMOL ANL is a true leveling agent for cationic dyes. The use of the product results in excellent migration of the dyestuffs and shows minimal effect on dyestuff exhaustion at recommended quantities.

Typical Properties:

Appearance: clear liquid

Ionicity: weakly cationic

pH on Dilution: essentially neutral

Odor: mild

Color: slightly yellow

Application:

1. Package Dyeing
2. Skeins, paddle, beck, stock dyeing

REMOL ASN Liquid:

Dispersing agent and compatibilizer for use in dyeing and optical brightening.

Composition: polyglycol ether

Typical Properties:

Appearance: clear liquid

Ionicity: nonionic

Reaction: practically neutral

Uses:

REMOL ASN liquid has an excellent dispersing and compatibilizing action in one-bath dyeing of wool or polyamide blends with acrylic fibers using anionic and cationic dyes and in dyeing polyester/acrylic fibers with disperse and cationic dyes.

REMOL DC:

Dispersing and leveling agent for reactive, direct and disperse dyestuffs. REMOL DC has excellent stability over a wide pH range as well as good salt or electrolyte stability.

Characteristics:

Appearance: clear, amber liquid

Composition: surfactant blend

Ionic Character: anionic

Uses:

1. Dispersant to prevent "scumming".
2. Improving solubility of dyestuffs (i.e. reactives).
3. Improving disperse dye specking problems in thermosol dyeing.
4. Direct dye leveler.

**AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):**

REMOL ELA:

Highly effective leveling and dispersing agent for the dyeing of polyester fibers and its blends.

Composition: polyglycol ester

Typical Properties:

Appearance: clear liquid

Ionicity: slightly anionic

Uses:

REMOL ELA exhibits excellent leveling properties. In package, beam and beck, level dyeings can be obtained even under difficult conditions such as highly compressed packages.

In dyeing polyester blends, REMOL ELA inhibits the staining of the natural fiber; thus a reductive clear in light and medium shades can be avoided.

In case of the reversed dyeing procedure of polyester/cotton, REMOL ELA is used for its leveling and antistaining properties.

REMOL GES Liquid:

REMOL GES Liquid is an efficient leveling agent to be used in dyeing of nylon fibers and wool as well as their blends.

Composition: Polyglycol ether

Typical Properties:

Appearance: yellowish-brown liquid

Ionic Character: slightly cationic

Uses:

REMOL GES Liquid is a leveling agent with affinity for dyestuffs. It favorably influences the solubility of dyestuffs, increases their migration power, and regulates the speed of dye absorption. REMOL GES Liquid enables the achievement of considerable tone-on-tone leveling in the dyeing behavior of the various nylon and wool dyestuffs.

In the dyeing of wool, REMOL GES Liquid is effective with neutral, acid, chrome and reactive dyestuffs, e.g. HOSTALAN dyestuffs.

The product is effective in all pH ranges normally used in the dyeing of wool and polyamide fibers.

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

REMOL LE:

High temperature carrier and leveling agent

Typical Properties

Appearance: low viscous, yellow liquid

Composition: blend of selected carrier substances based on biphenyl and esters

Uses:

REMOL LE has the following outstanding properties:

Best possible leveling properties under HT dyeing conditions. Very well suited as repair or (in higher concentrations) as stripping carrier. Easy to emulsify. Provides very stable emulsions even when poured directly into the dye bath. Requires only low concentrations.

Owing to its chiefly nonionic character, REMOL LE may be used successfully in the one bath dyeing process of PE/PAN blends with disperse and cationic dyes.

REMOL LE exhibits an excellent leveling action upon the disperse dye even when used on polyester with varying affinity (very good barre coverage). The use of additional leveling agents is not necessary.

REMOL NFE:

Multi-purpose non-foaming dyeing assistant for jet dyeing of polyester/cotton blends. Also, used in other dyeing procedures of polyester/cellulosic blends when foaming is a potential problem. REMOL NFE is also very well suited for afterscouring.

Typical Properties:

Appearance: straw colored, liquid

Composition: fatty acid polyglycol ester

Activity: 100% active

Uses:

REMOL NFE is mainly used in the jet dyeing of polyester/cellulosic fibers. The product has the following properties:

- * leveling
- * dispersing
- * lubrication (prevents crease marks)
- * trimer control
- * reduced cross-staining
- * removal of surface dye if used in after-soaping

The product eliminates a wide variety of additives. Use of defoamers can be reduced or eliminated. At dyeing temperatures of 265F, the use of carriers is not necessary.

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

REMOL NS:

Dyeing Assistant

REMOL NS is a low foaming dispersing agent specially prepared for use in the coupling bath of NAPHTHOL dyeings. A major advantage which REMOL NS offers to the package or beam dyer is the substantially higher flow rate. This factor in turn accelerates the coupling operation and minimizes the leveling difficulties frequently encountered as a result of inadequate liquor flow.

Composition: Polyglycol ether

Typical Properties:

Appearance: yellowish-brown, clear liquid

Ionicity: nonionic

Reaction: neutral

Uses:

REMOL NS is designed primarily to produce a higher rate of flow in package dyeing resulting in quicker distribution of dye liquor throughout all packages. Increased flow increases the coupling action, thereby preventing surface migration of the NAPHTHOL and ultimately producing dyeing of superior crocking fastness.

SOLEGAL P Liquid:

SOLEGAL P Liquid is a highly effective dispersing agent. It improves the dyebath stability, prevents filtering of disperse dyes, improves the levelness of package and beam dyeings, and prevents shade differences.

Typical Properties:

Appearance: brown, slightly viscous liquid

Composition: sulfonic acid formaldehyde condensation product

Ionic character: anionic

Reaction: neutral

Solubility: can be mixed with water in any ratio

Resistance to hard water: good

acids: good

alkalies: good

electrolytes: good

AMERICAN HOECHST CORP.: Dyeing and Printing Auxiliaries
(Continued):

SOLIDOKOLL N:

Padding auxiliary for the control of Dyestuff Migration

SOLIDOKOLL N is a synthetic thickener for the prevention of dyestuff migration during the intermediate drying of the fabric. It is particularly recommended for drying of synthetic fiber fabrics and its blends by the thermosol process.

Typical Properties:

Appearance: Clear to slightly hazy, amber, viscous liquid

Composition: aqueous solution of modified polyacrylic acid
(Sodium Salt)

Uses:

SOLIDOKOLL N exhibits the following outstanding characteristics:

- Excellent migration control, high performance at low cost.
- Simple and safe handling due to easy solubility. No "dye-specs".
- No build-up or deposits on the guide rollers.
- No detrimental influence or agglomeration of highly dispersed dyestuffs; e.g. HOSTAVAT (vats), POLYESTEREN, and SAMARON disperse dyestuffs.
- Compatible with a wide range of dyestuffs; i.e. sulfur, sulfur vat, fiber reactive, direct, acid and leuco vat ester dyestuffs.
- Decisive improvement of the appearance and color yield of polyester and polyester/cotton blended fabrics.
- SOLIDOKOLL N does not become insoluble or lose its swellability as some natural products during the drying or thermosol process.
- No dyestuff retardation.

VINAROL ST:

- Water soluble adhesive
- Sizing compound for staple fiber yarns

Composition:

polyvinyl alcohol containing acetyl groups

Characteristics:

Appearance: white to slightly yellowish powder

Ionicity: nonionic

Application:

As a water soluble adhesive in printing
For sizing

AMERICAN HOECHST CORP.: Optical Brighteners:

CARBOWHITE CEC:

Optical Brightener for Cellulosics and Nylon

CARBOWHITE CEC is an optical brightener with a neutral/blue cast for cellulosic fibers, nylon, and blends of these fibers. CARBOWHITE CEC has very good leveling properties. Because of its low substantivity, the product is very well suited for continuous processes.

Characteristics:

Appearance: amber liquid

Ionic Character: anionic

Reaction: pH 8-9

CARBOWHITE CEF:

Optical Brightener for Cellulosics and Nylon

CARBOWHITE CEF is an optical brightener which produces excellent white effects with a neutral/blue cast on cellulosic fibers, nylon, and blends of these fibers. CARBOWHITE CEF is highly substantive and is specially recommended for exhaust application. It can be used in conjunction with a peroxide bleach bath. For pad application, Hoechst recommends their CARBOWHITE CEC.

Properties:

Appearance: amber liquid

Solubility: can be diluted to any proportion with water

Ionic Properties: anionic

pH (1% solution): 7.5-8.5

HOSTALUX EBS-A:

Optical brightener for polyester and acetate fibers. HOSTALUX EBS-A produces a very brilliant white effect with a blue to blue/violet cast. The product can be applied by both continuous and exhaust processes.

Typical Properties:

Appearance: bluish dispersion

Ionicity: nonionic

Solubility: dispersible in water

pH (1% dispersion): neutral

AMERICAN HOECHST CORP.: Optical Brighteners(Continued):**HOSTALUX EBS-AL:**

HOSTALUX EBS-AL is a disperse optical brightener which has been specially formulated for continuous (thermosol) applications on polyester fibers and its blends.

Typical Properties:

Appearance: bluish dispersion
Ionicity: nonionic
pH (1% dispersion): neutral

Application:

HOSTALUX EBS-AL is applied by the pad-thermosol procedure.

HOSTALUX EBU:

Optical brightener for polyester and acetate fibers. HOSTALUX EBU produces a very brilliant white effect with a slightly bluish cast. The product can be applied by both continuous and exhaust processes.

Properties:

Appearance: yellow dispersion
Ionicity: nonionic
Solubility: dispersible in water
pH (1% dispersion): neutral

HOSTALUX ERA:

Optical brightener for polyester fibers and its blends, as well as for acetate and acetate/nylon fibers.

HOSTALUX ERA can be applied by continuous and exhaust methods.

Typical Properties:

Appearance: off white dispersion
Ionicity: nonionic
Solubility: dispersible in water in any proportions
pH: (1% dispersion): neutral

HOSTALUX NC:

Optical brightener for polyacrylonitrile fibers. HOSTALUX NC is stable in sodium chlorite bleaching liquors and can, therefore, be used in combination with such a bleach.

Typical Properties:

Appearance: clear, yellow liquid
Ionicity: cationic
Solubility: Readily soluble in water
pH (1% solution): 3.0-4.0

AMERICAN HOECHST CORP.: Optical Brighteners(Continued):

HOSTALUX NR:

Optical brightener for polyacrylonitrile fibers. Because of the high brilliance of the brightening effect, most acrylic fibers do not require a sodium chlorite bleach.

Typical Properties:

Appearance: clear or slightly cloudy yellow liquid
Ionicity: cationic
Solubility: readily soluble in water
pH: approx. 5

HOSTALUX NRF:

Optical brightener for polyacrylonitrile fibers. Produces a brilliant blue white. Because of the cationic nature of HOSTALUX NRF, an optimum brightening effect can be obtained on most acrylic fibers without the necessity of a sodium chlorite bleach.

Typical Properties:

Appearance: Opaque blue liquid
Ionicity: cationic
Solubility: readily soluble in water
pH: approx. 5

HOSTALUX PN Liquid:

Optical brightener for polyamide and protein fibers.

HOSTALUX PN Liquid is an anionic optical brightener which distinguishes itself by its excellent brilliant white effect and maximum fastness properties. In particular, its light fastness, gas fading fastness, and resistance to yellowing, are markedly better than other optical brighteners. Its running properties, during continuous processes, are very good. HOSTALUX PN Liquid performs very well on LYCRA fibers.

Typical Properties:

Appearance: creamy white liquid
Ionicity: anionic
Solubility: Soluble with 20-30 parts of warm water (>140F)
pH (1% solution): neutral

AMERICAN HOECHST CORP.: Surfactants:**HOSTAPUR CVA Highly Conc.:**

Versatile, highly concentrated nonionic surfactant

Composition: Polyglycol ether

Typical Properties:

Appearance: viscous, almost colorless liquid

Ionicity: nonionic

Activity: essentially 100% active

Solubility: HOSTAPUR CVA Highly Conc. is readily soluble in warm water (approx. 140F); the aqueous solutions are clear and stable.

Application:

HOSTAPUR CVA Highly Conc. is used mainly for finishing cotton, rayon staple, rayon, and man-made fibers

HOSTAPUR DOS Highly Conc.:

Wetting and rewetting agent

Composition: Sodium salt of dioctylsulfosuccinate

Typical Properties:

Appearance: clear, slightly yellow liquid

Ionicity: anionic

Active: 70-72% active ingredients

Uses:

HOSTAPUR DOS h.c. is a very effective wetting and rewetting agent in:

- * carpet dyeing
- * before sanforizing
- * before continuous dyeing of fabrics

HOSTAPUR CX Hi. Conc.:

Versatile wetting agent and detergent for textiles of all types.

Composition: Alkyl polyglycol ether

Typical Properties:

Appearance: colorless, slightly turbid liquid

Ionicity: nonionic

Solubility: soluble in cold water, more readily soluble in warm water

Uses:

Because of its pronounced interfacial activity, HOSTAPUR CX Hi. Conc. can be employed very successfully in the dyeing and finishing of textiles of natural and regenerated cellulose, wool, or synthetic fibers.

AMERICAN HOECHST CORP.: Surfactants(Continued):

HOSTAPUR DAD:

Versatile, moderately foaming wetting agent and detergent for textiles of all types.

Composition: alkyl polyglycol ether

Typical Properties:

Appearance: colorless, clear liquid

Ionicity: nonionic

Reaction: practically neutral

Activity: 94%

Uses:

Excellent wetting, emulsifying and scouring properties at temperatures up to 160F.

Very useful in preparation at a wide range of temperatures and steaming conditions.

Good washing on pigments, and strong degreasing effect. A pleasant supple handle is imparted to the goods.

Usage in the preparation, dyeing and finishing of textiles of natural and man-made fibers as well as synthetics and their blends.

PENTEX FR:

A biodegradable: Detergent

Wetting Agent

Soaping Agent for Fiber Reactive Dyes

PENTEX FR is a nonionic/anionic blended surfactant that is a biodegradable product for textile wet processing operations. Typical uses are in preparation of fabrics (bleaching), boil-off, and scouring of yarns and fabrics, soaping of fast dye yarns and fabrics particularly when dyed with fiber reactive dyes.

Typical Properties:

Appearance: clear, viscous liquid

Ionic character: anionic

Reaction: pH 6-7

Solubility: readily water soluble

Uses:

- * Alkaline boil and bleaching of fabrics (cotton and blends)
- * Boil-off and scouring of yarns and fabrics (synthetics and blends)
- * Soaping of fiber reactive dyed yarns and fabrics

AMERICAN HOECHST CORP.: Surfactants(Continued):**PENTEX OS-NF:**

Multipurpose, non-foaming detergent

Composition: Alkylene oxide polymer

Typical Properties:

Appearance: pale straw liquid

Ionicity: nonionic

Uses:

Non-foaming scouring agent for jets and other equipment where foaming causes problems. By its chemical nature, PENTEX OS-NF is particularly well-suited for removal of oily substances, such as knitting oils, from knit goods and fabrics.

PENTEX PBR:

Special wetting agent for the dyeing of greige and prepared goods.

Characteristics:

Appearance: clear liquid

Ionicity: anionic

Major Properties:

PENTEX PBR is a special wetting agent which is used in combination with EMIGEN AFP-A for the pad dyeing of greige goods.

PENTEX WS:

Highly effective wetting and scouring agent for all fibers. PENTEX WS has special properties for bleaching cotton and cotton/synthetic blends. This is due to its high stability to caustic, hydrogen peroxide, sodium hypochlorite, sodium chlorite, and other bleaching agents over a wide range of pH, temperature, and concentrations.

Typical Properties:

Appearance: clear, pale yellow liquid

Composition: blend of anionic and nonionic surfactants

Ionic Character: anionic/nonionic

Application:

- * Scouring of Cotton and Synthetic/Cotton Blends
- * Bleaching of Cotton and Synthetic/Cotton Blends

AMERICAN HOECHST CORP.: Miscellaneous:

CASSURIT NDS conc.:

Concentrated low-formaldehyde reactant, highly reactive

Composition: Modified glyoxal based resin

Typical properties:

Appearance: water-clear, slightly viscous liquid

Reaction: weakly acid, pH 5.1

Specific Gravity: approximately 1.32

Solubility: miscible with cold water in any ratio

Properties:

CASSURIT NDS conc., in concentration with Catalyst AM or Catalyst TP 2135, results in low formaldehyde easy-care finishes.

CASSURIT PDS Conc.:

CASSURIT PDS Conc. is a new reactant designed for low formaldehyde release while having a high reactivity. The high reactivity of CASSURIT PDS Conc. allows for either faster running speeds or use of a low formaldehyde resin under minimum curing conditions. CASSURIT PDS Conc. is a highly concentrated pre-catalyzed glyoxal reactant for cellulosic fibers and their blends with synthetic fibers. By being pre-catalyzed, CASSURIT PDS Conc. prevents the weighing errors of catalysts, thus eliminating the risk of over or under catalyzation. By being more concentrated than conventional resins, product usage is reduced by 40-60%.

Composition: Modified glyoxal based reactant, pre-catalyzed.

Typical Properties:

Appearance: clear, slightly yellow liquid

Reaction: acid. pH 3+-0.5

Specific Gravity: approx. 1.32

CASSURIT PSC:

CASSURIT PSC is a buffered pre-catalyzed reactant designed for low formaldehyde release finishing of cellulosic fibers and blends. CASSURIT PSC gives a minimum shade change in comparison with conventional glyoxal based reactants. In addition to the outstanding shade protection of sensitive colors such as turquoise and violet, CASSURIT PSC is recommended for durable press finishing while being compatible with typical pigment padding systems.

Composition: Buffered pre-catalyzed modified glyoxal based reactant

Typical Properties:

Appearance: clear, slightly yellow liquid

Reaction: acid

pH: 4.0 to 4.5

AMERICAN HOECHST CORP.: Miscellaneous(Continued):**CASSURIT Catalyst AM:**

Catalyst for resin finishing of woven and knitted fabrics of cellulosic fibers and blends. CASSURIT Catalyst AM is an acid donor for crosslinking resins giving a high rate of cure to low formaldehyde glyoxal based reactants. CASSURIT Catalyst AM was developed to provide excellent shade and whiteness retention.

Composition: Magnesium Chloride based solution

Typical Properties:

Appearance: clear, colorless liquid
Color (Gardner): 0-1
Specific Gravity: 1.24

FIBRAMOLL CN Liquid:

FIBRAMOLL CN Liquid is an excellent textile softener recommended for finishing natural and synthetic fabrics and their blends. A soft desirable hand can be accomplished without obtaining a greasy, slick finish. Treated fabrics show good scorch resistance and good non-yellowing properties.

Besides good heat resistance, FIBRAMOLL CN Liquid has a very good compatibility with dye fixatives, resins, and optical bleaching agents and is suited for resin finishing.

Typical Properties:

Composition: fatty acid condensation product
Appearance: off-white pourable paste
Ionic Nature: slightly cationic
pH (as is): 4-5
Activity, %: 20

General Use:

- * Softener for cotton and synthetic woven and knit fabrics.
- * Softener for permanent press fabrics.
- * Antistatic softener for dyed fabrics and yarns.
- * Napping aid for cotton and acrylic/cotton blends to minimize fiber breakage and to ensure a consistent even nap.
- * Low soiling softener on all dyed natural goods.

FIBRAMOLL NI:

FIBRAMOLL NI is an economical nonionic softener and lubricant for application on synthetics, cotton and cotton/synthetic blends. FIBRAMOLL NI is recommended for resin finishing where excellent whites are needed. Treated fabrics are non-yellowing and chlorine resistant.

Composition: fatty acid condensation product

Typical Properties:

Appearance: milky-white emulsion
Ionic Nature: nonionic
pH (1% solution): approx. 5.5

AMERICAN HOECHST CORP.: Miscellaneous(Continued):

LEOMIN KP:

Preparation agent for Electrostatic Flock Finishing. Lubricant and anti-static softener for synthetic fibers, wool and blends.

Typical Properties:

Appearance: off-white paste
Composition: quaternary fatty acid derivative
Ionic Character: cationic
Reaction: alkaline
pH 1% solution: 8.0-9.5

Uses:

LEOMIN KP has the great advantage of providing natural and synthetic fibers with a very good conductivity and at the same time, free flowing properties.

LEOMIN KP is absorbed substantively by wool and polyamide fibers.

Application:

Flock
Preparation Agent for Synthetic Fibers
Softening of Knitting Yarns

LEOMIN WA:

Special finishing agent for a permanent soft, smooth, and spring hand. Can be used on woven and knitted goods as well as yarns made of synthetic or cellulosic fibers, wool, silk, and various blends of these fibers. Further properties: improved crease resistance, improved sewability and cutting, anti-pill, anti-felting of wool.

Composition: Functional Polysiloxane Emulsion

Typical Properties:

Appearance: milky, white emulsion
Ionicity: nonionic
pH: 7-9

Uses:

Properties of the finished goods:
Hand: very soft, smooth, springy
Sewability: improved
Crease Resistance: improved
Permanence: fast to washing and dry-cleaning
Hydrophobic Effect: slightly hydrophobic
White Goods: no adverse effect if normal conditions are adhered to.
Colored Goods: generally no adverse effect

AMSPEC: Antimony Oxide:

Fire Retardant
Catalyst
Ceramic Opacifier
Chemical Intermediate
Pigment

Antimony Oxide is a white, odorless, fine powder.

Grades of Antimony Trioxide:**KR Grade:**

A high quality pigment grade with excellent whiteness, high opacity and high tinting strength.

LTS Grade:

A special low tinting strength grade for applications where color matching is difficult. The low tinting strength provides a minimum amount of whitening influence, thus permitting use of smaller amounts of pigments or dyes. LTS has about two-thirds the pigment strength of KR.

WHITE STAR Grade:

A high quality pigment grade with excellent whiteness, high opacity and high tinting strength.

BLUE STAR Grade:

A premium priced high purity grade with high opacity and excellent whiteness. It has an Arsenic specification of 0.1% maximum.

Chemical and Physical Properties:**KR:**

Total Sb as Sb₂O₃: 99.2
Arsenic (As): .5
Lead (Pb): .1
Acidity as H₂SO₄: .05
Specific Gravity: 5.7
Tinting Strength: high
Average Particle Size (Microns): 1-1.3
Oil Absorption: 9-11
Reflectance in oil: 96%
Color (Masstone): Excellent white
Residue on 325 mesh, %: .05

AMSPEC: Antimony Oxide(Continued):

Chemical and Physical Properties:

LTS:

Total Sb as Sb₂O₃: 99.2
Arsenic (As): .5
Lead (Pb): .1
Acidity as H₂SO₄: .05
Specific Gravity: 5.7
Tinting Strength: low
Average Particle Size (Microns): 1.8-2.0
Oil Absorption: 9-11
Reflectance in oil: 91%
Color (Masstone): white
Residue on 325 mesh, %: .1

WHITE STAR:

Total Sb as Sb₂O₃: 99.2
Arsenic (As): .5
Lead (Pb): .07
Acidity as H₂SO₄: .25
Specific Gravity: 5.7
Tinting Strength: high
Average Particle Size (Microns): 1-1.3
Oil Absorption: 9-11
Reflectance in oil: 92%
Color (Masstone): Excellent white
Residue on 325 mesh, %: .05

BLUE STAR:

Total Sb as Sb₂O₃: 99.5
Arsenic (As): .1
Lead (Pb): .05
Acidity as H₂SO₄: .04
Specific Gravity: 5.7
Tinting Strength: high
Average Particle Size (Microns): 1-1.3
Oil Absorption: 9-11
Reflectance in oil: 92%
Color (Masstone): Excellent white
Residue on 325 mesh, %: .004

ANEDCO, INC.: Textile Industry Compounds:**ANEDCO AC-163:**

Corrosion Inhibitor Intermediate

ANEDCO AC-163 is an Amino Ethyl Alkyl Imidazoline Concentrate

Suggested Uses:

ANEDCO AC-163 is a versatile basic intermediate which can be further modified by reacting with dimer-trimer acids to obtain an excellent film persistent-corrosion inhibitor. Various surfactants may be added to obtain improved water dispersibility. ANEDCO AC-163 may be reacted with a short chain organic acid such as: acetic acid, hydroxy acetic acid, etc. to form a water-soluble corrosion inhibitor.

Typical Properties:

Appearance: Dark brown liquid
Activity: 100%
Total Amine Value: 192
Density @ 77F (25C): 7.6 lbs/gal
Flash Point: 490F (254C)
Viscosity: 150 cps

ANEDCO AC-164:

High Molecular Weight Imidazoline

ANEDCO AC-164 is a fatty acid hydroxy ethyl Imidazoline

Suggested Uses:

ANEDCO AC-164 is a versatile basic intermediate which can be further modified. It may also be used in other applications such as in fuels or lube oils. Other applications for ANEDCO AC-164 are as an inhibitor, a wetting agent, an emulsifier, and a cationic surfactant. Derivatives of ANEDCO AC-164 are useful as corrosion inhibitors for down-hole inhibition, invert emulsifiers, dispersants, and antistatic agents.

Typical Properties:

Appearance: Clear amber liquid
Activity: 100%
Total Amine Value: 151
Density @ 25C: 7.6 lbs/gal.
Flash Point: 430F (221C)

ANGUS CHEMICAL CO.: Aminohydroxy Compounds:

Delayed-Cure Catalysts for Permanent Press Resins

ANGUS Chemical Company markets the following aminohydroxy compounds:

AMP, 2-amino-2-methyl-1-propanol

AEPD brand of 2-amino-2-ethyl-1,3-propanediol

TRIS AMINO brand of tris (hydroxymethyl)-aminomethane

DMAMP, 2-dimethylamino-2-methyl-1-propanol

These aminohydroxy compounds in the form of their salts are extremely useful as catalysts for permanent press resins. The utilization of these compounds alone or in combination with metal salts such as magnesium chloride or zinc nitrate promotes balanced curing action with a wide range of textile resins. These catalysts provide:

- * A wide range of catalytic activity
- * Good color
- * Versatility
- * Odor control

The amine salt catalysts are nearly colorless and exhibit little tendency to turn yellow in storage. Nor do they turn the fabric yellow or otherwise affect its color. The range in base strengths of the amines and the choice of acid for the salt permits tailoring the activity of the catalysts to provide the shelf stability and curing rate required.

The ultimate performance of a durable-press resin system is dependent on a number of factors, such as cloth type, resin type and level, cure temperature, cure time, and system pH.

Anhydrous Aminohydroxy Compound:

DMAMP:

Formula Weight: 117.19

Boiling Point: 160C

AMP:

Formula Weight: 89.14

Boiling Point: 165C

AEPD:

Formula Weight: 119.17

Boiling Point: 152C at 10 mmHg

TRIS AMINO:

Formula Weight: 121.14

Boiling Point: 219C at 10 mmHg

AMP-95: Contains 5% water and 95% AMP.

DMAMP-80: Contains 20% water and 80% DMAMP

TRIS AMINO 40% concentrate: Contains approximately 60% water and approximately 40% TRIS AMINO

AEPD: Is marketed with a maximum of 3.8% water.

ANGUS CHEMICAL CO.: REFORM Textile Reactant in the Permanent Press Process:

REFORM brand of textile reactant (as an aqueous solution with 60% active solids) is used to reduce free formaldehyde levels on durable-press fabrics by 40-70%. When REFORM textile reactant is combined with currently used durable-press resins, not only is free formaldehyde permanently reduced, but also the physical properties of the cured fabrics remain essentially unaltered, even after storage for one year.

The benefits to be expected from the use of REFORM textile reactant in the durable-press process are listed below:

- * REFORM textile reactant permanently reduces free formaldehyde levels on cured fabric when used with any of the usual durable-press resin systems--glyoxal, carbamate, or urea-formaldehyde. It works with both 100% cotton and cotton/polyester blended fabrics.
- * Physical properties of the cured fabrics are essentially unchanged by the use of REFORM textile reactant, even after long-term storage.
- * Since REFORM textile reactant is substituted for a portion of the total reactant solids in the pad bath, there are no added costs. There are no posttreatment steps, and no capital is required for additional equipment or processing.
- * REFORM textile lubricant is compatible in the pad bath and does not affect pad bath stability.
- * Neither the REFORM textile reactant nor the cured cloth treated with REFORM textile reactant cause skin irritation or any allergic skin reaction or sensitization. REFORM textile reactant is not mutagenic.

Directions for Use:

REFORM textile reactant is incorporated on an active-solids basis directly into the pad bath as a substitution for a portion of the active solids of the durable-press resin. It has a reactive hydroxyl group with which to enter into the curing process and become bound with the resin in the cured finish.

The degree of substitution for optimum results will vary depending on the durable-press resin with which it is to be used. For many glyoxal reactants, the substitution will average about 35% on the active-solids basis. With certain carbamates the optimum may be closer to 50% replacement on a direct-weight basis. For trial formulation with a specific modified reactant system, use about one-third substitution as a starting level.

BASF CORP.: Range of Finishing Agents:

KAURIT Types:

The KAURIT types are either free or etherified N-methylol compounds of urea or of melamine. They are used mainly for the resin finishing of regenerated cellulose fibres, alone and in blends with synthetics. The term "self-crosslinking agents" characterizes their mode of reaction.

The KAURIT types improve the crease-recovery and dimensional stability of cellulosic textiles. They reduce the swelling capacity of these textiles and produce permanent calender and plisse effects.

Finally, the KAURIT types are also used for finishing special types of synthetic textiles. A typical example is the stiff finishing of polyamide and polyester fabrics.

KAURIT S:

KAURIT S is a urea-formaldehyde compound; its composition is roughly that of dimethylol urea. The product is supplied in the form of white, fine powder with almost 100% active substance.

KAURIT S reacts under mild curing conditions, mainly with formation of crosslinkages with itself, and it imparts good crease-recovery and a firm and resilient handle to the goods. In the finishing of cotton, KAURIT S is normally employed only in cases where the finish does not have to be resistant to washing at the boil and/or the finishing cost has to be low.

KAURIT S is recommended particularly for the finishing of interlinings and cellulosic/synthetic fibre blends, and also for fixing other finishing agents. When adequately cured, the finishes are resistant to washing at up to 60C, but not resistant to chlorine.

The stability of the finishing liquor is limited. It depends on the concentration of KAURIT S, the temperature, and the type and amount of catalyst. The catalysts employed are ammonium salts or metal salts.

KAURIT W:

KAURIT W consists of a dimethylol urea modified by etherification. It is supplied in the form of an approx. 80% paste that dissolves readily in warm water. KAURIT W is less reactive than KAURIT S, but it has far better liquor stability owing to the etherification. The bath stability of other, unmodified methylol-urea compounds can be improved markedly by addition of 30-50% of KAURIT W.

KAURIT W is recommended for the antcrease and antishrink finishing of spun rayons and cotton cloth, and for the fixation of filling and stiffening agents on wool and other fibrous materials. The product imparts a woolly, full and resilient handle to spun rayons. On polyamide fabrics it produces a good stiff handle, such as is required for polyamide-rayon lace and polyamide tulle.

When adequately cured, finishes with KAURIT W resist washing at up to 60C, but are not resistant to chlorine.

BASF CORP.: Range of Finishing Agents(Continued):**KAURIT KFN:**

KAURIT KFN is a urea-formaldehyde compound, similar to KAURIT S in its chemical composition. In contrast to the latter, however, it is supplied in the form of a 50% homogeneous paste.

KAURIT KFN is recommended for the antcrease and anti-shrink finishing of rayon, cotton and linen fabrics and blends of these fibres with one another or with wool or synthetics. It also produces good results in the embossed, chintz, Schreiner and plisse finishing of cotton and spun rayon fabrics and in the fixation of filling agents.

KAURIT KFN is very simple to apply.

In view of its high reactivity, KAURIT KFN can also be applied by the flash curing process.

Finishes with KAURIT KFN are resistant to dry cleaning and to washing at temperatures up to about 60C. Chlorine-containing detergents must be avoided.

KAURIT M90:

KAURIT M90 is an extensively etherified, highly methylolated derivative of melamine with approx. 90% active substance. Despite the high degree of etherification the product is miscible with water in all proportions. KAURIT M90 has good storage and liquor stability.

KAURIT M90 is used for the antishrink and easy-care finishing of cotton fabrics and spun rayons, for permanent fixation of calender effects, for the fixation of reactive filling and stiff finishes and for the stiff finishing of synthetic textiles, e.g., collar interlinings, petticoat fabrics, and lace. The product is often used in combination with other KAURIT or FIXAPRET types.

Finishes with KAURIT M90 have much the same resistance to washing at the boil as FIXAPRET finishes. Chlorination and ironing have practically no influence on the tear strength of the finished fabric, but the goods may yellow slightly. KAURIT M90 may, however, impair the light fastness of some direct and reactive dyed shades to a very slight degree.

The wash resistance of finishes with KAURIT S, W and KFN can be improved markedly by addition of KAURIT M90. The chlorine resistance can also be improved to a certain extent by this addition.

KAURIT M90 imparts a somewhat fuller handle than the reactant-type crosslinking agents. This influence is more noticeable on spun rayons than on cotton.

The buffering effect of KAURIT M90 permits more latitude in the application conditions, with only slight variations of the tear strength and abrasion resistance. This applies in particular to overcuring due to the presence of an excessive amount of catalyst.

BASF CORP.: Range of Finishing Agents(Continued):

FIXAPRET Types:

The FIXAPRET types are reactant-type crosslinking agents, i.e. products that react mainly with the cellulose and less with themselves.

They are made to react with the cellulose in the presence of latently acid catalysts under the influence of heat within a few minutes (dry crosslinking) or in the presence of potentially acid catalysts at room temperature and with longer treating time (moist crosslinking, wet crosslinking).

FIXAPRET types are mainly used in cases where wash-and-wear finishes with good resistance to washing at the boil are required. Cellulosic-synthetic blends are also finished mainly with reactant-type products. It has already been mentioned that certain types are suitable for producing permanent calender and plisse effects.

The reactant-type crosslinking agents have hardly any influence on the handle of cellulosic textiles, the only exceptions being FIXAPRET CPU and BU. On blends containing more than 50% of polyester fibres, FIXAPRET PEC and CPN produce the softest handle.

The bath stability of FIXAPRET types is excellent, even in the presence of catalysts.

FIXAPRET AH:

FIXAPRET AH is a product derived from dimethylolethylene urea and is supplied in the form of an approx. 50% aqueous solution. The product itself and liquors prepared with it have only a weak odour of formaldehyde, and they have almost unlimited stability.

FIXAPRET AH has the highest reactivity of all BASF reactants. It is recommended for the easy-care finishing of textiles composed of native and regenerated cellulose, alone and in blends with synthetics. In view of its high reactivity, FIXAPRET AH is very suitable for the flash curing process.

The product has also established itself in plisse finishing, where the goods can only be heated for a short time on the curing table.

FIXAPRET AH is liable to impair the light fastness of reactive or direct dyed shades. Finishes with FIXAPRET AH are not resistant to repeated chlorine washes.

FIXAPRET AC:

FIXAPRET AC is a methylation product of ethylene urea and melamine. It has a concentration of approx. 50%. Both the storage and the bath stability are very good.

FIXAPRET AC has essentially the same behaviour as FIXAPRET AH, except that it has somewhat lower activity. It produces finishes with moderate chlorine resistance.

In view of its good buffering capacity, FIXAPRET AC can be used in cases where a finishing agent that is not resistant to chlorine is to be added and fairly good resistance to chlorine of the finish is nevertheless required.

The product has also established itself for the production of permanent calender and plisse finishes.

BASF CORP.: Range of Finishing Agents(Continued):**FIXAPRET Types(Continued):****FIXAPRET PH:**

FIXAPRET PH contains dimethylolpropylene urea as active substance in an approx. 50% aqueous solution.

The outstanding feature of FIXAPRET PH is its absolute resistance to detergents that contain active chlorine, even in cases where an acid hygienic treatment, e.g. with zinc silicofluoride, has been carried out.

FIXAPRET PH is, therefore, a top-ranking product for the chlorine resistant finishing of white goods, poplin shirting, blouse materials, and collar interlinings. Good fixation of the product on the fibre is, of course, essential. It should be noted, however, that FIXAPRET PH is liable to impair the light fastness of direct and reactive dyed shades to a certain extent.

FIXAPRET PH does not, however, match FIXAPRET CPN in the resistance of the finishes to hydrolysis by acids.

In the presence of a suitable catalyst, FIXAPRET PH is suitable for the delayed curing, as used in the BASF P2 process for permanent-press finishing. FIXAPRET PH can also be used for moist cross-linking.

FIXAPRET PCL:

FIXAPRET PCL contains dimethylol-4-methoxy-5,5-dimethylpropylene urea in 50% solution. It combines some remarkable advantages of other FIXAPRET types.

Textiles finished with FIXAPRET PCL have very good easy-care properties, very good hydrolysis stability, and good chlorine resistance. This finish generally has no influence on the light fastness of reactive dyed or printed shades, and in the few cases where it does, the influence is only very slight.

FIXAPRET PCL can be applied to cellulosic textiles by all processes and for all finishes in which latent or potent acids are used as catalyst, e.g. classical finishing, moist cross-linking and wet crosslinking. It is the most versatile of all FIXAPRET types. FIXAPRET PCL is one of the less reactive cross-linking agents and must, therefore, be cured under energetic conditions.

The usefulness of the product in moist crosslinking is based on its good hydrolysis stability, which permits a strongly acid catalysis; e.g. with CONDENSOL FN. The chlorine resistance of finishes obtained by moist crosslinking is good, provided crosslinking is complete.

There are certain limits to the usefulness of FIXAPRET PCL in the finishing of blends. If the fabric contains more than 50% of synthetic fibre, the product is liable to stiffen the handle. However, the self-condensates that form on synthetic fibres in dry crosslinking are water soluble, so that the goods have a soft handle after just one wash.

BASF CORP.: Range of Finishing Agents(Continued):

FIXAPRET Types(Continued):

FIXAPRET CPN, CP Conc.:

FIXAPRET CPN and CP Conc. contain dimethylol-4.5-dihydroxy-ethylene urea in the form of 45% and 75% solutions respectively. Both the storage and bath stability of the products are very good.

They are recommended for the easy-care and antishrink finishing of textiles composed of cotton and rayon staple, alone or in blends with synthetics. The products are eminently suitable for coloured goods, because they do not impair the light fastness of reactive and direct dyed shades; in many cases they actually improve this property. The products have no influence on the dyed shade itself, provided the correct catalyst has been selected. FIXAPRET CPN and CP Conc. are also suitable for white goods, provided chlorine resistance of the finish is not required. They are very suitable for the production of permanent calender effects.

FIXAPRET CPF 71:

FIXAPRET CPF 71 is a modified glyoxal reactant compound. Its composition makes it particularly suitable for permanent-press finishing with zinc nitrate as catalyst for white and coloured goods. Compared with FIXAPRET CPN, it has the advantage that it does not change the shade of coloured goods or impair the whiteness of finished fabrics, not even under the severe curing conditions of the post-cure method when applied in combination with zinc nitrate.

FIXAPRET CPF 71 can also be used for moist and wet cross-linking. In the hydrolysis stability of the finish, It corresponds to FIXAPRET CPN.

FIXAPRET CPU:

FIXAPRET CPU is a product derived from a modified dimethylol-4.5-dihydroxy-ethylene urea in the form of an approx. 50% aqueous solution.

FIXAPRET CPU is recommended for the easy-care finishing of textiles composed of native and regenerated cellulose, alone and in blends with synthetics. It has higher reactivity than FIXAPRET CPN, and is therefore very suitable for the flash curing process.

The product does not influence the light fastness of direct and reactive dyed shades except in a few cases, and then only slightly.

Finishes with FIXAPRET CPU have very good hydrolysis stability, but they are affected by chlorine.

When applied to blends containing more than 50% of synthetic fibres, FIXAPRET CPU may impart a fuller handle. It produces a firm and resilient handle, particularly to fabrics composed of regenerated cellulose.

BASF CORP.: Range of Finishing Agents(Continued):**FIXAPRET Types(Continued):****FIXAPRET COC:**

FIXAPRET COC is the 50% aqueous solution of a derivative of dimethylol-4.5-dihydroxy-ethylene urea. It is recommended for the resin finishing of white and coloured textiles composed of cellulosic fibres, alone and in blends with synthetics.

The product has practically no influence on the light fastness and the shade of goods dyed with reactive and direct dyes. The handle of synthetic textiles may become somewhat fuller after the treatment with FIXAPRET COC.

The hydrolysis stability of the finishes is excellent, as good as that of FIXAPRET CPN finishes.

In contrast to FIXAPRET CPN, FIXAPRET COC produces chlorine resistant finishes when applied by the dry curing process. FIXAPRET COC finishes produced by moist and wet crosslinking, however, are not resistant to chlorine.

Owing to its chemical modification, FIXAPRET COC requires more energetic curing conditions than FIXAPRET CPN in order to produce optimum finishing results.

FIXAPRET PEC:

FIXAPRET PEC is a 45% aqueous solution of selected reactant compounds of the N-methylol and O-methylol range. The product was specially developed for the resin finishing of polyester/cellulosic blends.

Crosslinking of the cellulose by FIXAPRET PEC can be effected by dry curing, or by moist and wet crosslinking, or by the pre-cure method of permanent-press finishing.

The reactivity of FIXAPRET PEC is comparable with that of FIXAPRET PCL and COC. If there is any danger of the product not being adequately cured, an afterwash should be given. The finishes obtained with FIXAPRET PEC have good hydrolysis stability. When the product is applied by the dry curing or the moist crosslinking method, the finish has no tendency to retain chlorine. The product does not impair the shade or the light fastness of coloured goods.

FIXAPRET PEC imparts a very elegant, flowing handle, particularly to polyester/cellulose blends.

BASF CORP.: Range of Finishing Agents(Continued):

FIXAPRET Types(Continued):

FIXAPRET TN:

FIXAPRET TN is a methylolated triazinone in approx. 50% aqueous solution. The storage stability and the stability of liquors prepared with FIXAPRET TN is very good, even in the presence of catalysts.

FIXAPRET TN is recommended mainly for the easy-care finishing of white cotton goods. The finishes obtained with the product are fairly resistant to chlorine owing to its good buffering effect, but in this respect the product is inferior to FIXAPRET PH, COC and PCL.

All triazinone products have a tendency to develop fishy odours, but these odours can be removed completely by means of an alkaline wash after curing.

The antcrease effect can be improved still further by combining FIXAPRET TN with FIXAPRET AH, for instance. Finishes produced in this manner also have a useful degree of chlorine resistance.

FIXAPRET TN in combination with other FIXAPRET types is very suitable for moist crosslinking. When it is mixed with twice the amount of FIXAPRET CPN, its strong buffering effect makes variations of the residual moisture content between 2 and 10% tolerable. This permits a wide latitude in operating conditions. On the other hand, the buffering effect reduces the quality of the finishes to medium level.

FIXAPRET BU:

FIXAPRET BU contains as active substance a dimethylol-alkanediol diurethane in approx. 50% aqueous solution.

FIXAPRET BU occupies a special position within the range of reactant-type products. It reacts mainly with the hydroxyl groups of the cellulose, but it also forms crosslinkages with itself. Like the melamine derivatives, it occupies an intermediate position between the reactant types and the self-crosslinking agents.

FIXAPRET BU produces finishes with good wet crease-recovery, but only moderate dry crease-recovery. The loss in abrasion resistance and tear strength is generally speaking, slight. In order to obtain good dry crease-recovery, it is advisable to combine the product with a KAURIT type. FIXAPRET BU has no influence on the light fastness of reactive and direct dyed shades. On the other hand, the finishes are not chlorine resistant.

FIXAPRET BU imparts a full handle to the goods. On polyamide fabrics it produces stiff finishes.

BASF CORP.: Range of Finishing Agents(Continued):**CONDENSOL Types:**

CONDENSOL is the tradename under which BASF markets various catalysts for finishing textiles.

CONDENSOL A:

CONDENSOL A is a catalyst which contains ammonium nitrate as active substance and is used mainly for the resin finishing of regenerated cellulose. It is liable to change the shade of coloured goods, and it may also impair the light fastness of optical brighteners.

CONDENSOL Z:

The active substance contained in the catalyst CONDENSOL Z is zinc chloride. The product is used mainly in combination with the FIXAPRET and KAURIT types for the wash-and-wear finishing of cotton and cotton/synthetic goods.

CONDENSOL FN:

CONDENSOL FN was specially developed for the moist cross-linking process. This catalyst consists of inorganic acids and organic compounds. It is very suitable for fabrics composed of cellulosic fibres, alone and in blends with synthetics.

CONDENSOL K:

CONDENSOL K is based on zinc nitrate. It is used mainly together with FIXAPRET CPF 71 for permanent-press finishing.

CONDENSOL SK:

CONDENSOL SK is a metal salt catalyst which contains complexing components.

With this highly active catalyst system, curing can be carried out at temperatures 15-20°C lower than those used with conventional metal salts, or alternatively the normal curing temperature can be used and the curing time cut down accordingly.

For textiles that are affected by heat, e.g. linen, CONDENSOL SK permits milder curing conditions to be used. The shorter curing time is particularly beneficial for the flash curing process.

CONDENSOL I New:

CONDENSOL I New is a special metal salt catalyst for water-repellent finishing with the silicone product PERSISTOL SIN.

It is the aqueous dispersion of a fatty acid salt and it is resistant to metal salts. It can be used for all types of fibre, but is recommended mainly for cellulosic textiles.

When applied to goods that have been dyed with disperse dyes, however, CONDENSOL I New may impair the rub fastness. For this reason it is better to use CONDENSOL II in such cases.

BASF CORP.: Range of Finishing Agents(Continued):

CONDENSOL Types(Continued):

CONDENSOL II:

CONDENSOL II is also a special catalyst for water-repellent finishing with the silicone product PERSISTOL SIN. It contains the aqueous solution of an epoxide compound.

CONDENSOL II is recommended for synthetics and blends of synthetic and natural fibres, e.g. polyester/cotton or polyester/wool.

CONDENSOL II protects coloured goods from any loss of rub fastness caused by water-repellent finishing. CONDENSOL II is affected by metal salt. If fairly large quantities of cross-linking agent and catalyst are to be used, preliminary trials should always be carried out to test whether the bath stability is adequate.

In some cases it may be preferable to use the combination of PERSISTOL SIN and CONDENSOL I New. The possibility of the rub fastness of coloured goods being impaired by this combinations must, however, be taken into consideration.

PERAPRET Types:

The PERAPRET types are aqueous, non-ionic or anionic plastics dispersions, which are used either alone or in combination with an N-methylol compound, depending on the finishing effect required.

Some PERAPRET types have proved particularly suitable for use as additives to improve the strength properties of the finished goods.

Some of them have a stiffening, filling or loading effect and are used as handle modifiers.

Generally speaking, the PERAPRET types are distinguished by good chlorine resistance. They are fixed with good wash resistance by drying at temperatures above 100C. Exceptionally good wash resistance is achieved with reactive copolymers which react with themselves or with the N-methylol compound and the cellulosic fibre under the normal curing conditions.

BASF CORP.: Range of Finishing Agents(Continued):**PERAPRET Types(Continued):****PERAPRET D and PERAPRET DS:**

PERAPRET D and PERAPRET DS are anionic polyacrylate dispersions with low viscosity. They have a solids content of approx. 25% and a pH of 2-3. They are both used to facilitate the removal of soil from textiles, particularly blends of cellulosic and synthetic fibres, under normal conditions of household washing. They are, therefore, applied as additives in soil-release finishing. The treating liquor must, of course, only contain products that do not impair this desired effect.

The two PERAPRET types D and DS differ from each other in their influence on the handle. PERAPRET D has a somewhat stiffening influence, while PERAPRET DS imparts a full handle. If a softer handle is desired, it is advisable to add SILIGEN E or to calender or sanforize the goods.

PERAPRET F and PERAPRET K:

The anionic PERAPRET types F and K are reactive copolymers derived from acrylate with a solids content of approx. 40% and 50%, respectively. They have a pH of 4-6.

The two products are finishing agents for the stiff finishing of textiles of all types with resistance to washing at the boil, dry cleaning, and chlorine. PERAPRET K has even better wash resistance than PERAPRET F. Both products are used preferably for the finishing of interlinings, particularly those for collars and cuffs.

PERAPRET WF:

PERAPRET WF is a non-ionic dispersion derived from polyvinyl propionate. It has medium viscosity, a solids content of approx. 50%, and a pH of 4-6.

It is a chlorine-resistant finishing agent for full and stiff effects on textiles of all types; when dried at a temperature of at least 120C, the finishes are also resistant to washing. PERAPRET WF is used mainly for interlinings and for tablecloths and bedsheets.

PERAPRET VA:

PERAPRET VA is an aqueous, non-ionic polyvinyl acetate dispersion with a solids content of approx. 50% for wash-resistant filling and stiffening finishes. It produces exceptionally firm finishes, as required for interlinings. The product is also used for finishing twills, tablecloths and bedsheets and for the backfinishing of pile fabrics.

The good wash resistance of the finishes can be improved still further by addition of an N-methylol compound.

PERAPRET VA is compatible with water-repellent agents e.g. the RAMASIT and PERSISTOL types. It may impair the water repellency, particularly when used in high concentrations.

BASF CORP.: Range of Finishing Agents(Continued):

PERAPRET Types(Continued):

PERAPRET HVN:

PERAPRET HVN is the aqueous dispersion of an anionic polyacrylate which contains reactive groups. It has a solids content of approx. 40% and a pH of 5-7.

The product is fixed to cellulose in the presence of latently acid catalysts at 130-140C, and even without the addition of an N-methylol compound, the finish is wash resistant. The product has hardly any influence on the handle.

PERAPRET HVN is used as additive in resin finishing. It cuts down the loss of tear strength and abrasion resistance and improves the crease-recovery, so that the amount of N-methylol compound in the recipe can be reduced somewhat without impairing the crease-recovery. The rub fastness of naphtol and Indanthren dyeings is improved.

PERAPRET PE 40:

PERAPRET PE 40 is an anionic primary dispersion based on polyethylene with a solids content of approx. 40% and a pH of 7-8.

The product is a typical resin finishing additive and cuts down the loss of tear and tensile strength and abrasion resistance in the finishing of cellulosic textiles. It imparts a smooth, soft handle, particularly when used in combination with SILIGEN E. The sewability of resin finished goods is improved by PERAPRET PE 40.

PERAPRET SF:

PERAPRET SF is a non-ionic, acrylate-type plastics dispersion.

It is an anti-picking and anti-snagging agent, particularly for knit-goods of texturized synthetic filament yarns, because it covers the yarn with an elastic, permanent polymer film.

PERAPRET SF also imparts a marked anti-piling effect to woven and knitted fabrics of blended yarns containing synthetic fibres.

The product can be used as a permanent handle modifier and also as a loading agent. In the latter case, where the product is used in relatively large quantities, it is advisable to add SILIGEN E to remove the moist tackiness from the goods. PERAPRET SF has established itself as loading agent for synthetic and all-wool fabrics.

BASF CORP.: Range of Finishing Agents(Continued):**TEXAPRET Types:**

With the exception of the powder-form TEXAPRET K, all TEXAPRET types are aqueous solutions. They are applied either alone or in combination with other finishing agents, according to the effect desired. They are used to impart a stiff, full handle or to load the fabric. With the exception of TEXAPRET S, they are not resistant to washing. TEXAPRET AM can, however, be fixed with resistance to washing by crosslinking with an N-methylol compound.

TEXAPRET A:

TEXAPRET A is a highly viscous, aqueous, anionic, polyacrylate-type solution with a solids content of approx. 15% and a neutral reaction.

TEXAPRET A imparts a full, and when used in fairly large quantities, a stiff handle to cellulosic fabrics. The effect is not wash-resistant. The product is used mainly for finishing tapes and for the backfinishing of carpets. Generally speaking, TEXAPRET A is not used in resin finishing, because it is liable to impair the quality of these finishes.

TEXAPRET AM:

TEXAPRET AM is a polyacrylate-type plastics solution. It is non-ionic, and has a solids content of approx. 20% and a weakly acid reaction.

In contrast to TEXAPRET A, TEXAPRET AM contains reactive groups. It produces a full, slightly stiff, but not harsh, handle, and can be fixed with resistance to washing by using N-methylol compounds.

The product has established itself as stiffening component in the finishing of imitation linen composed of rayon staple.

TEXAPRET AM is particularly economical on spun rayons, but it is also used as filling finish for cotton, wool and blended fabrics.

TEXAPRET C:

TEXAPRET C is the aqueous, highly viscous solution of a non-ionic, acrylate-type copolymer. It has a weakly alkaline reaction and a solids content of approx. 16%.

TEXAPRET C is used as filling or stiffening finish or as binder for starch and loading agents. The resistance to washing is only moderate.

The product is often used for thickening aqueous solutions or plastic dispersions.

BASF CORP.: Range of Finishing Agents(Continued):

TEXAPRET Types(Continued):

TEXAPRET WL:

TEXAPRET WL is the approx. 50% solution of a non-ionic polyether in water. It is highly viscous and has a weakly acid reaction. The solution can be diluted with cold water. When heated to temperatures above 32C, the polyether is precipitated out of the solutions, but it dissolves again on cooling. Should TEXAPRET WL precipitate and cause stains on the goods when the finishing bath is heated, these stains can be removed by treating the goods with cold water.

TEXAPRET WL imparts a very full, fleshy handle to linings of cupramonium, rayon or acetate continuous filament, and a full handle to wool and wool union goods.

The product improves the abrasion resistance of resin finished, cellulosic fabrics.

TEXAPRET NAV:

TEXAPRET NAV is the approx. 40% solution of a urea-formaldehyde compound with neutral reaction. The product can be fixed fast to washing in combination with N-methylol compounds. It imparts a full, flowing handle with good resilience. It is applied particularly to linings of regenerated cellulose or acetate, and it improves their transverse stability and thus their behaviour during cutting in the manufacture of garments. A particular advantage of TEXAPRET NAV is that it can be combined with water-repellent agents, e.g. the PERISTOL and RAMASIT types. It normally has no influence on the water repellency.

TEXAPRET S:

TEXAPRET S is the approx. 55% solution of a urea-formaldehyde compound. It has medium viscosity and a neutral reaction.

The product is used to impart stiffening and highly elastic finishes to cellulosic textiles, particularly interlinings. The finish has good resistance to washing.

The liquor stability of TEXAPRET S deteriorates with decreasing concentration, but it can be improved markedly by solubilizers derived from low-molecular N-methylol compounds, e.g. KAURIT W or other KAURIT and FIXAPRET types. Ammonium or metal salts are used in the normal manner as catalysts.

BASF CORP.: Range of Finishing Agents(Continued):**TEXAPRET Types(Continued):****TEXAPRET K:**

TEXAPRET K is a high-molecular urea-formaldehyde condensation product. It is supplied in powder form and is readily soluble in warm or hot water. The 5% solution has a pH of about 8. In contrast to TEXAPRET S, it requires no solubilizer owing to the good liquor stability.

Goods treated with TEXAPRET K have a firm to stiff handle and good resilience. The effect is fixed fast to washing by curing in the presence of suitable catalysts (e.g. CONDENSOL A, ammonium chloride or ammonium sulphate) after curing. The product is particularly suitable for finishing cellulosic interlinings, but it is not chlorine-resistant.

TEXAPRET K is not compatible with aluminum and magnesium salts or with RAMASIT K and PERSISTOL types.

SILIGEN Types:

The SILIGEN types are additives, auxiliaries for producing special effects in textile finishing, or softening agents that resist heat.

SILIGEN E:

SILIGEN E is the aqueous emulsion of the anionic silicate. It is compatible with almost all finishing agents.

It is used preferably as additive in the resin finishing of cotton and rayon staple, alone and in blends with synthetics. It improves the abrasion resistance, the tear strength, and the sewability. In two-colour textiles, it reduces the frosting effect.

SILIGEN E imparts to fabrics a smooth, flowing handle, which is highly desirable in the wash-and-wear finishing of poplin shirtings, for instance.

SILIGEN E does not impair soil-release finishes.

SILIGEN SI:

SILIGEN SI is a fluid, slightly acid, non-ionic, silicone-type emulsion, which is miscible with water in all proportions.

As softening and smoothing agent SILIGEN SI imparts the soft, flowing "silicone" handle that is highly desirable for many types of textiles. As heat-resistant additive in resin finishing, it is often used in permanent-press finishing to improve the abrasion resistance and tear strength and to correct the handle. It also improves the dry and wet crease-recovery of cellulosic/synthetic fibre blends.

When used as smoothing agent in finishing cotton corduroy and velvet, SILIGEN SI produces an open and silky-soft pile with good lustre. The product is also used as heat-stable smoothing agent for sewing thread on high-speed sewing machines.

BASF CORP.: Range of Finishing Agents(Continued):

SILIGEN Types(Continued):

SILIGEN FA:

SILIGEN FA is the non-ionic, aqueous solution of an oxy-alkylation product with medium viscosity. It is soluble in cold water. It precipitates from its aqueous solution when heated to about 40C, but dissolves again on cooling.

In view of this behaviour SILIGEN FA is a valuable auxiliary to reduce the migration in one-bath pigment dyeing and finishing. At the same time it stabilizes the dispersion of pigment dyes in the padding liquor and helps to prevent masking of the rollers.

SILIGEN FA imparts a soft handle, so that it is often unnecessary to add any other softening agent. It acts like SILIGEN E in smoothing the surface of the textile material and imparts good hydrophilic properties to the goods at the same time.

SILIGEN III:

SILIGEN III is a glue-free wax emulsion, which is used as softening and smoothing agent in finishing and as lustring component in calendering similar to TEXTILE WAX W. When used as addition to sizing liquors, it is slightly superior to TEXTILE WAX in its smoothing effect.

SILIGEN III W can also be used as preliminary finish in the sanforizing of cotton fabrics. It smoothes the surface of the fabric, so that the goods slip more readily on the sanforizing drum, resulting in increased shrinkage.

SILIGEN WL:

SILIGEN WL is a water-soluble polyether. It produces an even softer handle than TEXTILE WAX W.

SILIGEN WL is particularly suitable for use as smoothing agent for yarns. It is also used as bath stabilizer and handle-modifying component in soil-release finishing with PERAPRET D and PERAPRET DS.

SILIGEN HS:

The cationic product SILIGEN HS imparts good softness to fibres of all types. It also has an antistatic effect.

SILIGEN AFN:

Like SILIGEN HS, SILIGEN AFN is a good softening agent for use in resin finishing in view of its good resistance to heat and oxidation. It is non-ionic. Its softening effect is slightly inferior to that of SILIGEN HS.

BASF CORP.: Range of Finishing Agents(Continued):**TEXTILE WAX Types:**

The TEXTILE WAX types are finishing agents which impart smoothness and lustre to the fabric.

TEXTILE WAX I:

TEXTILE WAX I is a glue-containing, anionic paraffin wax emulsion with good wetting properties. It imparts a smooth, supple, full handle, and in calendering, a high lustre to cellulosic textiles. It is used as smoothing agent for raised articles and sewing thread.

TEXTILE WAX W:

TEXTILE WAX W is a water-soluble, wax-like, high-molecular polyether in the form of microbeads. It is dissolved by pouring warm water over the product.

The product imparts high gloss during the finishing and calendering of textile fabrics. It also makes the handle softer and fuller.

TEXTILE WAX W is used as smoothing agent in warp sizing. It is easier to apply and also easier to wash out than sizing agents that contain paraffin wax. The fact that it can be readily removed by washing is particularly useful in cases where the goods are to be bleached, dyed or resin finished after weaving.

LURAPRET Types:

The LURAPRET types are colloidal solutions of silicic acid, and they are used as antislip agents in textile finishing. The antislip effect is impaired by softening agents.

LURAPRET B25:

LURAPRET B25 is an aqueous, colloidal solution of silicic acid. It has a pH of 10; it is non-ionic and can be diluted with water as desired.

The product is used for antislip finishing both in combination with resin finishing agents (antishrink finishing of linings) and separately for woven and knitted goods of continuous filament yarns, e.g. rayon, acetate and polyamides. It imparts an unobtrusive delustering effect. LURAPRET B25 produces a somewhat "sandy" handle, which is particularly desirable for hose.

In combination with polyacrylate dispersions, e.g. PERAPRET HVN, PERAPRET F and HELIZARIN BINDER FA, finishes with LURAPRET B25 can be fixed wash-fast. The product is not compatible with some water-repellent and softening agents.

BASF CORP.: Range of Finishing Agents(Continued):

LURAPRET Types(Continued):

LURAPRET H:

LURAPRET H is also a colloidal solution of silicic acid. The slightly opalescent liquid is cationic; it has a weakly acid reaction and is miscible with water in all proportions. It is an antislip agent which, in contrast to LURAPRET B25, is compatible with water-repellent agents. It has established itself in one-bath pigment dyeing and finishing of filament fabrics, particularly rayon linings, an application for which its compatibility with water-repellent agents is very useful.

PERSISTOL Types:

The PERSISTOL types are supplied in the form of aqueous emulsions. They are wash-resistant water-repelling agents derived from paraffin wax or silicone and are used mainly for the water-repellent finishing of outerwear.

PERSISTOL E:

PERSISTOL E is an emulsifier-free, circonium salt-containing paraffin wax emulsion, which is used as an all-purpose water-repelling agent. It can be combined with the KAURIT and FIXAPRET types used in resin finishing.

PERSISTOL F Conc.:

PERSISTOL F Conc. is an emulsifier-free, circonium salt-containing paraffin wax emulsion with exceptionally high emulsion stability. It can be used as a water-repellent agent in general, but it is particularly suitable for the wet-in-wet finishing of linings.

PERSISTOL HP:

PERSISTOL HP is a metal salt-free, reactive product for the wash-resistant water-repellent finishing of textiles composed of cellulosic fibres, alone and in blends with synthetics. It can be applied in one bath together with the KAURIT and FIXAPRET types in resin finishing. In oleophobic finishing it is used as an extender to promote the finishing effect.

PERSISTOL SIN:

PERSISTOL SIN is a silicone-type impregnating agent for the water-repellent finishing of fabrics of all types. According to the type of substrate, it is necessary to use CONDENSOL I New or CONDENSOL II.

BASF CORP.: Range of Finishing Agents(Continued):**RAMASIT Types:**

The RAMASIT types are water-repelling agents derived from paraffin wax. They are used mainly for finishing tent cloths and canvas and for the after-impregnation of textiles.

RAMASIT K:

RAMASIT K is a paraffin wax emulsion containing aluminum salt and glue for the water-repellent and waterproof impregnation of textiles, particularly canvas. It imparts a firm, full handle to the goods.

RAMASIT KGT:

RAMASIT KGT is a paraffin wax emulsion that contains aluminum salt but is free from glue and therefore does not change the handle of the treated goods. It has much the same applications as RAMASIT K.

Products for Pigment Dyeing:

For pigment dyeing in combination with resin finishing, it is necessary to use pigment dyes, a binder, an antimigration agent, and a wetting and preferably foam-suppressing auxiliary.

HELIZARIN BINDER FA:

HELIZARIN BINDER FA is a non-ionic, acrylate-type binder. In one-bath pigment dyeing and finishing, the plastics dispersion is applied together with reactant-type products. The binder produces wash-fast pigment dyeings in pale shades with a soft handle. As it contains no polybutadiene, the dyeings are fast to ageing.

HELIZARIN BINDER F:

HELIZARIN BINDER F is an anionic binder derived from butyl acrylate and vinyl chloride.

HELIZARIN BINDER F is used preferably for pigment dyeing processes not combined with resin finishing. It imparts a fuller handle to the textile material than HELIZARIN BINDER FA.

HELIZARIN DYES:

The HELIZARIN dyes can be used for both pigment dyeing and textile printing. It is, therefore, unnecessary to keep separate stocks for printing and dyeing. The dyes are supplied in liquid or pasty form and they have only a low content of dispersing agent.

Auxiliaries:

Antimigration agent SILIGEN FA

VITEXOL PFA as antifoam and stabilizer for dispersions

BASF CORP.: Range of Finishing Agents(Continued):

LUROTEX A25:

LUROTEX A25 is a non-ionic, light-yellowish, liquid or gel-like polyamide derivative. It can be readily dissolved by pouring hot water over the product.

LUROTEX A25 is used in textile finishing to obtain a pleasing, flowing handle, to improve the abrasion resistance, and to impart hydrophilic properties.

A particularly interesting special application of LUROTEX A25 is the hydrophilic finishing of woven and knitted fabrics of synthetic fibres. It improves the moisture transport, so that the fabric is more comfortable to wear and there is less build-up of electrostatic charges.

In dyeing, LUROTEX A25 is used to prevent the formation of creases in the winch beck deying of polyamide or polyester piecegoods.

GERMOCID:

GERMOCID is a cation-active liquid with low viscosity and a faint, not unpleasant odour. Aqueous solutions of the product, which has a neutral reaction, may tend to foam.

GERMOCID is used for the fungicidal and bactericidal finishing of textiles. As addition to sizing and finishing compositions, it prevents their premature decomposition by fouling and moulds formation. Textile materials treated with GERMOCID have very good absorptivity and rewetting properties. The product is extracted from the prepared textiles at a low rate, which depends on the temperature and the pH.

LANAPRESS PW:

LANAPRESS PW is a viscous liquid that can be mixed with water in all proportions.

The product improves the wearing and care properties of textiles composed of wool, alone or in blends with synthetic fibres. It fixes ironed creases and reduces the tendency to creasing. The surface of the fabric becomes smooth and has a permanent lustre.

The finish is resistant to humidity, water and steam and also to dry cleaning. It does not, however, resist washing in household washing machines.

BERCEN, INC.: Resins for The Textile Industry:**Resins:****BERSET 2604:****Crosslinker and Insolubilizer**

BERSET 2604 is a melamine based resin with very low free formaldehyde content. It is a very effective crosslinker and insolubilizer for starch, protein, P.V.A., and latex in non-pigmented or pigmented coatings. When BERSSET 2604 is added to the coating color, good wet pick resistance and wet rub improvements are noticeable directly off the machine.

Typical Properties:

Type: Methylated melamine formaldehyde resin

pH: 9.0+-0.5

Appearance: Clear liquid

Solids: 65% active

Viscosity: 100+-20 cps. at 77F.

Specific Gravity: 1.19

Solubility: Dilutable in water to all proportions

Advantages:

- * Good wet rub resistance
- * Provides good stiffness properties at size press
- * Low formaldehyde odor
- * Good printing properties
- * Compatible with most paper coating additives
- * Economical

BERSET 2425:**Crosslinker and Insolubilizer**

BERSET 2425 is a melamine based coating insolubilizer. It is a very effective crosslinker for starch, protein, P.V.A., and latex binders in pigmented, or non-pigmented coatings. BERSSET 2425 is sufficiently reactive so that 80-90% of insolubilization is achieved directly off the machine and completely developed within a day. Unlike other crosslinkers, BERSSET 2425 has little or no effect on coating viscosities. BERSSET 2425 has an advantage of having a very low free formaldehyde.

Typical Properties:

Type: Modified melamine formaldehyde resin

pH: 9.0+-0.5

Appearance: Clear liquid

Solids: 70% active

Viscosity: 160 cps

Specific Gravity: 1.22

Solubility: Dilutable in water to all proportions.

BERCEN, INC.: Resins for the Textile Industry(Continued):

BERSET 2425(Continued):

Advantages:

- * Good wet rub resistance
- * Economical
- * Good wet pick resistance
- * Low formaldehyde odor
- * Good printing properties
- * Compatible with most coating additives
- * Excellent storage stability

BERSET 2408:

BERSET 2408 is a high efficiency melamine formaldehyde acid colloid wet strength resin. BERSET 2408 shows high efficiency in producing wet strength in all types of pulp. BERSET 2408 gives wet strength even in the presence of high concentrations of sulfate ions.

Typical Properties:

Appearance: Bluish, hazy solution
Activity: 8%
pH: 1.5-2.0
Solubility: Complete
Stability: 4-6 weeks

Advantages:

- * Stable liquid
- * Easy to use
- * Long storage life
- * Gives excellent wet strength

BERSET 2185:

Coating Insolubilizer

BERSET 2185 is a new generation of crosslinking agents. Unlike conventional melamines or urea resins, BERSET 2185's reactivity is accelerated only in the drying process. BERSET 2185 provides good viscosity in coatings containing starch or protein binders, while providing superior wet-rub and wet-pick resistance properties. Wet strength properties are developed off the machine in most paper coated grades.

BERCEN, INC.: Resins for the Textile Industry(Continued):**BERSET 2185(Continued):****Typical Properties:**

Type: Cellulose glyoxal reactant
Appearance: Light straw colored liquid
Viscosity: 20 cps
pH: 2.5+-0.5
Solids: 45+-0.1
Specific Gravity: 1.20
Solubility: Dilutable with water in all proportions

Advantages:

- * Good wet-rub resistance off the machine
- * No formaldehyde odor
- * Coating exhibits stable viscosity characteristics
- * Provides excellent printing properties
- * Compatible with most coating additives
- * Imparts good dimensional stability to paper
- * Imparts marginal wet strength for size press
- * Liquid for handling

BERSET 2020:

Crosslinker/Insolubilizer

BERSET 2020 is a highly effective insolubilizing and cross-linking agent. BERSER 2020 is less reactive during coating preparation thus providing stable viscosity of the coating color. BERSER 2020'S reactivity is greatly accelerated during the drying cycle which results in higher wet rub and wet pick resistance. BERSER 2020 crosslinks all normally used synthetic and natural binders in pigmented or non-pigmented systems.

Physical Properties:

Type: Crosslinking reactant
Appearance: Light, straw color
Viscosity: 20+-10 cps
pH: 2.5+-0.5
Solids: 50% active
Specific Gravity: 1.29
Solubility: Completely soluble

Advantages:

- * No formaldehyde odor
- * Imparts good wet pick resistance
- * Compatible with most coating additives
- * Good wet rub resistance off machine
- * Coatings exhibit stable viscosity
- * Imparts good coating stability

BERCEN, INC.: Resins for the Textile Industry(Continued):

BERSET 2100:

Crosslinker/Insolubilizer

BERSET 2100 is a newly designed and highly effective cross-linking agent. Unlike many other conventional resins, BERSET 2100 has no formaldehyde. BERSET 2100's reactivity is slower during coating preparation and accelerated at the drying process, thus providing a stable viscosity. BERSET 2100 crosslinks all synthetic and natural binders during the drying cycle, resulting in a high degree of wet rub and wet pick resistance off machine. Coating colors containing BERSET 2100 exhibit a very modest viscosity increase immediately after addition of the insolubilizer.

Physical Properties:

Type: Monomeric reactant

Appearance: Light, straw colored liquid

Viscosity: 20+-10 cps

pH: 3.0+-1.0

Solids: 45%+-1.0%

Specific Gravity: 1.26+-0.01

Solubility: Dilutable with water in all proportions

Advantages:

- * Develops good wet rub resistance
- * Coating formulations exhibit stable viscosity
- * Imparts good wet pick resistance
- * No formaldehyde
- * Compatible with most coating additives
- * Good shelf life

BERSET 2047:

Cross-linker and Cellulose Reactant

BERSET 2047 is a new generation of glyoxal based crosslinking agents. Unlike conventional glyoxal, BERSET 2047's reactivity is reduced during coating preparation and accelerated in the drying process. BERSET 2047 provides good viscosity in coatings containing starch or protein, while enhancing wet-rub and wet-pick resistance properties.

Typical Properties:

Type: Buffered glyoxal reactant

Appearance: Clear, straw colored liquid

Viscosity cps: 20

pH: 2.5+-0.5

Solids: 50% active

Specific Gravity: 1.29

Solubility: Dilutable with water in all proportions

Advantages:

- * Good wet-rub resistance off the machine
- * No formaldehyde odor
- * Coating exhibits stable viscosity characteristics
- * Compatible with most coating additives
- * Imparts good dimensional stability to paper
- * Good wet-pick resistance

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries:**BURCENE 80:**

BURCENE 80 is an aqueous solution of the pentasodium salt of diethylene-triamine pentaacetic acid. It is more stable to oxidation and forms more stable complexes with some ions than EDTA type chelating agents.

Typical Properties:

Appearance: slightly viscous, clear, pale straw-colored liquid

pH (1% solution): 11.0-12.0

Solubility: Completely soluble in cold water

Chelating power: 80 mg. CaCO_3 per gram at pH 11

General Application:

Chelating agents of the DTPA type are similar in many respects to those of the EDTA type; however, they have certain properties which make it advantageous to use them rather than the EDTA types in certain applications. They form stronger complexes than EDTA with some metal ions such as cupric and manganous ions which makes them ideal for the inactivation of trace catalytic metals. They are more compatible with liquid alkali and more resistant to oxidation than EDTA types. All of these properties make the DTPA type chelating agents ideally suited for use in scouring and bleaching baths where prolonged stability of hydrogen peroxide even in the presence of trace amounts of iron or copper is desired. BURCENE 80 is equivalent to EDTA types for chelating ferric ions at high pH values but is more effective than the EDTA types at lower pH values. In acid media BURCENE 80 will chelate nickel, cobalt, lead, chromium, copper, ferrous, and ferric ions. In alkaline media it will chelate nickel, cobalt, lead, copper, manganese, tin, zinc, cadmium, calcium, magnesium, strontium, barium, ferrous and ferric ions.

BURCENE 100:

BURCENE 100 is an aqueous solution of the tetrasodium salt of ethylenediamine tetraacetic acid. It is very versatile chelating agent for controlling unwanted metal ions over a broad pH range.

General Characteristics:

Appearance: slightly viscous, clear, pale straw-colored liquid

pH (1% solution): 11-12

Solubility: Completely soluble in cold water

Chelating power: 100 mg CaCO_3 per gram at pH 11

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCENE 100(Continued):

General Application:

Chelating agents of the EDTA type are probably the most versatile and widely used chelating agents for controlling unwanted metal ions in solution over a broad pH range and are usually the first to be considered for such applications. They will chelate calcium and magnesium in the pH range above 6.0 and ferric iron in the pH range below 8.0. BURCENE 100 will chelate about 50 mg. of ferric iron per gram in the pH range where it is effective. It will chelate most heavy metals such as copper, zinc, lead, manganese, etc., in the pH range below 12.0 and will preferentially chelate these ions when they are present with calcium and magnesium in excess amounts.

BURCENE 100 exhibits low toxicity, is completely miscible with water, and is generally not affected by extreme conditions of temperature, acidity or basicity. It is resistant to the action of reducing agents but is unstable to strong oxidizing agents such as hydrogen peroxide and therefore is not recommended for use in bleaching baths. BURCENE 100 is recommended for use in scouring, dyeing, and all other textile wet processes except bleaching for controlling water hardness and preventing the adverse effects of heavy metal ions. For general use, it will usually be found to be the chelating agent to use for maximum efficiency and minimum cost.

The amount of BURCENE 100 needed will depend upon the amount of metal ions present to be chelated, but for most dyeing and scouring processes concentrations of 0.1 - 0.2% in the bath are usually adequate.

BURCO ANTIMIGRANT DP-30:

Dyeing Assistant

BURCO ANTIMIGRANT DP-30 prevents bleeding of high concentrations of direct or acid dyes used in the wet-processing of cotton, rayon, silk, or wool fibers. Its properties prevent lay marks and drawing of the colors at various wet treatment stages before the drying operation.

Special Advantages:

- * Applicable in cold or warm rinse baths
- * No adverse action on shade or finishing effect
- * Easy application on all forms of fibers dyes with direct or acid dyes

General Properties:

Chemical description: compounded metallic salts

Physical form: liquid

pH (1% solution): 5.3-5.7

Solubility: soluble in water to any proportion

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO AP:

Multi-purpose Scouring and Dyeing Assistant

BURCO AP is a versatile aid in scouring as well as in dyeing all fiber substrates. It possesses low foaming characteristics and has good detergent activity when used with alkaline builders such as Tetra sodium pyrophosphate (TSPP), soda ash or caustic soda. Maximum scouring results are obtained with the use of TSPP.

BURCO AP acts as an anti-precipitant in the dyebath when anionic and cationic dyes are combined. It also is widely used as a compatibilizer in anionic retarder systems used with cationic dyes on acrylics.

Characteristics:

- * Easily soluble in cold water
- * Suitable for alkaline and acid pre- or post-scouring operations
- * Promotes reserving of component fibers in acrylic blends when dyeing with cationic dyes
- * Promotes level dyeing with directs, vats and sulphur dyes, thus reducing bronzing effects

General Properties:

Chemical nature: Straight chain aliphatic ethylene oxide condensate

Physical form: Off-white to yellow clear viscous liquid

Ionic nature: Nonionic

pH: 6.0-8.0

Solubility: Readily miscible in water to all proportions

BURCO C3F:

BURCO C3F is a scouring agent, bleaching assistant and leveling agent for use under multiple dyehouse conditions where an economical, but highly effective product is needed.

The major characteristics of BURCO C3F are a result of its complex blends of phosphated alcohols and nonionic detergents. A complete range of HLB's are covered by BURCO C3F, giving it superior scouring power as well as good leveling properties for direct, fibre reactive and vat dyestuffs on cellulosic fibres.

As a bleaching assistant for continuous and batch bleaching, BURCO C3F withstands the alkaline conditions of the chlorine, chlorite or peroxygen bleaching systems, leaving goods absorbent, soft, and oil and wax free. It is a fast wetter under all conditions.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO C3F(Continued):

Characteristics:

- * Good bleach bath stability
- * Covers a wide range of HLB's
- * Levels cellulosic dyestuffs
- * Fast wetting speeds

Physical Properties:

State: clear liquid
Odor: ester
1% pH: 7.5-8.0
Cloud point: over 212F aqueous
1% wetting speed: Instant

BURCO CARRIER CDP:

BURCO CARRIER CDP is a butyl benzoate type carrier for the dyeing of polyester and triacetate fibers, and blends containing these fibers. It can be used as a carrier with disperse and cationic dyestuffs.

BURCO CARRIER CDP is a carrier for cationic dyes on polyesters such as DACRON 62, 64 or 92. It gives full color yields and excellent leveling on these fibers while reserving other fibers (such as DACRON 54, 56 or cellulose) in blends. Outstanding color and white (even black and white) effects can be achieved in a one-step dyeing procedure.

BURCO CARRIER CDP will give efficient, trouble-free, level dyeing of polyester and triacetate fibers without dye specks and spots in all types of equipment.

BURCO CARRIER CDP is particularly recommended for high temperature dyeing, but can be used at atmospheric conditions. At atmospheric pressure, more BURCO CARRIER CDP will be required in medium to full shades, but brighter and cleaner shades will be achieved.

BURCO CARRIER CDP has little, if any, effect on the lightfastness of dyestuffs. BURCO CARRIER CDP is also an excellent aid in stripping and leveling.

Chemical & Physical Properties:

Chemical composition: self-emulsifiable blend of organic esters.

Form: liquid
Color: light straw
Activity: 100%
pH of 1% emulsion: 5.5 to 6.5
Stability in acid media: stable
Stability in alkaline media: stable
Emulsion stability: stable

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO CARRIER JCV:

Blend of chlorinated solvents and biphenyl.

Amber colored liquid.

Odor: Not objectionable on dilution

pH: On dilution, essentially neutral

Ionic nature: Non-ionic, anionic

Preparation: Easily extended in water at 100-200 deg. F.

Compatibility: Excellent with non-ionic, anionic and cationic auxillaries and dyes.

Application:

BURCO CARRIER JCV is an extremely versatile product and can be used in the following areas:

Atmospheric beck, beam, jet, paddle and skein dye.

Pressure jet, beck and package dye

BURCO CARRIER NAOP:

BURCO CARRIER NAOP is a totally non-traditional carrier that is odorless, biodegradable and generally non-detectable in traditional wastewater tests.

BURCO CARRIER NAOP gives good yields under atmospheric and pressure dyeing conditions. Extremely suitable for atmospheric dyehouses where odors are a problem or in areas where traditional carriers are not allowed by local authorities.

Characteristics:

- * A no-odor carrier for polyester
- * Excellent yields at atmospheric and pressure conditions
- * Good migration assures level dyeing
- * Readily biodegradable
- * Gives good yields with cationic dyes on cationic dyeable polyester

Physical Properties:

Appearance: light amber liquid

Odor: none

pH on dilution: 4-5

Ionic nature: nonionic/anionic

Density: 9.27 lbs/gal

Specific gravity: 1.113 @ 22C

Procedure:

Dilution: Add 1 part BURCO CARRIER NAOP to 3-4 parts warm water with agitation.

BURCO CARRIER NAOP is a no odor, biodegradable carrier for polyester that offers distinct advantages over traditional solvent based carriers.

BURCO CARRIER NAOP is biodegradable, contains no aromatic or chlorinated solvents, and would eliminate the need for expensive air monitoring.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOCRYL JW:

BURCOCRYL JW is a migrating, leveling agent for basic dyes or basic/neutral acid blends. Its unique property is its ability to move throughout the dyesites, thereby forcing migration.

Physical Properties:

Appearance: water white
Odor: characteristic amine
Ionic nature: cationic
1% pH: 7.0-8.0

BURCO DEFOAMER RS:

BURCO DEFOAMER RS is a very stable, long-lasting "reacted" silicone defoamer that virtually eliminates problems associated with free silicone oils found in most silicone defoamers. Readily dispersible, BURCO DEFOAMER RS is effective under a broad range of conditions including high-temperature and pressure processing.

Advantages:

- * Eliminates foam efficiently throughout dyeing cycle - defoams even during depressurizing of jets.
- * Superior compatibility with dyes and other chemicals - stable to most electrolytes.
- * Efficient and stable at high temperatures - resistant to emulsification by processing surfactants.
- * Effective in all types of dyeing equipment - leaves no scum ring, avoids dye spots.

Typical Properties:

Appearance: Milky white liquid
Chemical nature: Reacted poly-siloxane dispersion
Ionic charge: Nonionic
Dispersibility: Easily dispersed in water
Stability: Excellent to dilute acids and alkalis at dyebath concentrations.

BURCO DEFOAMER RS is a "stabilized" silicone defoamer. By altering the defoaming molecule, its foam killing efficiency makes it far more resistant to emulsion breakdown. The water dispersibility of BURCO DEFOAMER RS is also superior to that of other silicones, so it rinses freely from the goods.

Unlike other silicone defoamers, BURCO DEFOAMER RS is stable in baths containing high concentrations of electrolytes which can come from one or more of the following sources:

1. pH modifiers (ammonium sulfate, MSP, TSP, other salts)
2. Water (hardness ions and trace metals)
3. Dyestuffs (the dye molecule, salt, diluents, and/or dispersants)
4. Chemicals (cationic or anionic materials)
5. Salts (common salt, glaubers salt)

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO DISPERSANT DA-GD:
Powder and Liquid

Anionic Dispersing Agent for Disperse Dyes

Available in powder and liquid form, BURCO DISPERSANT DA-GD is an efficient anionic dispersing agent for disperse dyes. It ensures dyebath stability, particularly under the high stress conditions encountered in beam, package and jet dyeing.

BURCO DISPERSANT DA-GD is also an effective aid in preparing disperse dyes prior to addition to the dyebath since it aids wetting and enhances the function of the dispersant normally present in the dyes. Its low foaming characteristics makes it suitable for all types of dyeing equipment.

Important Advantages:

- * No effect on shade or fastness properties
- * Helps assure speck-free dyeings
- * Helps prevent dye agglomeration from building up on equipment
- * Effective under both atmospheric and high temperature conditions
- * Easy to handle in powder or liquid form

General Properties:

Chemical description: condensed sodium salt of naphthalene sulfonate

Powder:

Physical form: tan, free-flowing
Ionic nature: anionic
pH (typical): 10% sol. pH 7-8
Solubility: readily soluble in water

Liquid:

Physical form: brown liquid
Ionic nature: anionic
pH (typical): as is pH 7-9
Solubility: miscible in water to all proportions

Application Areas:

Preparation of Disperse Dyes Prior to Addition to Dyebath
Preparation of Disperse Dyebath for Polyester, Acetate, Triacetate, etc.

Other Use Areas:

Continuous Processing
Anionic Retarder System for Cationic Dyes on Acrylics

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCODYE D-6-LF:

Leveling Agent for Disperse and Acid Dyes

BURCODYE D-6-LF is a new leveling agent for disperse and acid dyes on acetate and nylon and on blends with natural fibers. It offers outstanding emulsification and dispersion properties and also acts as an anti-precipitant.

BURCODYE D-6-LF's excellent emulsifying properties control residual oils which may be carried over from prescouring operations. It improves carrier stability during dyeing and is also effective in one-bath cationic/acid applications.

BURCODYE D-6-LF is multifunctional, eliminating the need for additional leveling agents when dyeing fiber blends. It is also an effective leveling agent for direct dyes on cellulose.

Advantages:

- * Levels disperse and acid dyes without significant dye retardation.
- * Eliminates the need for additional dispersing agents in the dyebath.
- * Controls residual oils carried over from prescouring operations.
- * Improves carrier stability during dyeing.
- * Functions as a leveling agent for both fibers in a blend when dyeing with disperse and acid dyes on cellulose.

General Properties:

Chemical description: blend of surfactants

Physical form: clear to slightly hazy yellowish pourable liquid

Ionic nature: amphoteric

pH (as is): 6.5+-1.0

Solubility: readily miscible in water to all proportions.

Storage Stability: Two years.

Application:

BURCODYE D-6-LF may be added undiluted into the dyebath at the start of the dyeing cycle and can be applied under atmospheric or pressure conditions. It is low foaming and yields excellent results on piece goods, yarn, package dyeing and carpet.

Disperse-Dyeable Fibers: triacetate, acetate, nylon

Blends of Disperse-Dyeable & Acid-Dyeable Fibers

Decreased Staining of Natural Fibers

Blends of Basic-Dyeable & Acid-Dyeable Fibers

Blends of Basic-Dyeable/Disperse-Dyeable Polyester

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO ELA:

Highly effective leveling and dispersing agent for the dyeing of polyester fibers and its blends.

Composition: polyglycol ester

Typical Properties:

Appearance: clear liquid

Ionicity: slightly anionic

Reaction: practically neutral

Solubility: gives clear solution in water in any proportion

Storage stability: good

Uses:

BURCO ELA exhibits excellent leveling properties. In package, beam and beck, level dyeings can be obtained even under difficult conditions such as highly compressed packages.

In dyeing polyester blends, BURCO ELA inhibits the staining of the natural fiber; thus a reductive clear in light and medium shades can be avoided.

In the case of the reversed dyeing procedure of polyester/cotton, BURCO ELA is used for its leveling and antistaining properties.

BURCO FINISH 55:

BURCO FINISH 55 is a 55% solids polyvinyl acetate emulsion for use in textile finishing as a hand builder.

Characteristics:

Appearance: Opaque white emulsion

Solids content: 55%

pH: 4.0-5.0

Viscosity: 200-500 cps.

Ionic nature: Nonionic

Particle Size: Average--1 micron

Maximum--8 microns

Procedure:

BURCO FINISH 55 is used primarily in finishing baths for fabric stiffening. It is a very efficient and economical hand builder. It tends to produce a stiff, full leathery hand as opposed to the thin, crisp hand produced by polyvinyl alcohol and starch derivatives. Being nonionic in nature, it is highly compatible with a wide variety of resins, softeners, catalysts and other finishing bath components.

BURCO FINISH 55 has excellent running properties and will not present roll and clip build-up problems. It can be added directly to the finishing bath in an amount sufficient to produce the hand desired.

BURCO FINISH 55 may also be used in backcoating and back-filling. In these operations, thickeners should be added to the bath to achieve the proper viscosity for such work.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOFIX FR-30:

BURCOFIX FR-30 is a resinous, cationic substantive dye fixative that gives good fixation of direct colors with reduction of bleeding and crocking.

BURCOFIX FR-30 is used to increase the wetfastness of direct, develop, reactive and acid dyestuffs on cotton, rayon, wool, and their blends. It also decidedly improves the fastness to cold water bleeding, sea water, perspiration, and prevents migration of the above mentioned dyes during drying.

BURCOFIX FR-30 has little to no effect on dye shades with the added advantage of increasing fastness to washing wet processing and perspiration.

Chemical & Physical Properties:

Appearance: clear, yellowish, slightly viscous liquid

Chemical nature: resinous, cationic substantive dye fixative
pH on dilution: 3.0-4.0

Density: 1.130 (9.38 lbs/gal)

Solubility: complete

Compatibility: Compatible with cationic & nonionic agents.
Forms insoluble precipitates with anionic agents.

BURCOFIX N50:

Dyebath auxiliary for Acid dyes on Nylon

BURCOFIX N50 is an important new anionic dyebath auxiliary with a dual capability both as a leveling and aftertreating agent. As a leveling agent, it controls the strike rate of acid dyes. At the same time, it eliminates the need for a separate afterfixing treatment by producing high water bleed fastness and washfastness properties.

Because it promotes superior wetfastness, BURCOFIX N50 is especially recommended for fibers like texturized 6 and 6.6 nylon, ANTRON 111 and their blends with LYCRA for athletic wear and swimwear.

The elimination of an aftertreating cycle with BURCOFIX N50 results in the achievement of washfastness requirements in a shorter period of time, while also conserving water and energy.

Important Advantages:

- * Produces level dyeing and high wetfastness in one step.
- * Has little effect on lightfastness
- * Is an easy to handle, stable liquid
- * Saves energy, time and water - no aftertreatment bath required
- * Product is low foaming - stable in jet equipment

General Properties:

Chemical description: phenolic condensate

Physical form: dark brown liquid

Ionic nature: anionic

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOLEV CTB Conc.:

BURCOLEV CTB Conc. is an outstanding leveling agent for use with all types of acid dyes on nylon or wool. It promotes excellent levelness, even with hard-to-level dyes under adverse dyeing conditions.

Characteristics:

- * Gives unsurpassed migration of acid dyes
- * Achieves full leveling in short dye cycles
- * Effective with all acid dye classes
- * Economical - low unit cost
- * Low foaming
- * Dissolves readily in cold or warm water

Physical Properties:

Physical form: liquid

Odor: mild

pH on dilution: slightly alkaline

At use dilution: gives clear solutions in water

Color: Amber

Specific gravity: 1.0

BURCOLEV E:

Barre Preventative for Acid Dyes on Nylon

Effective with all types of acid dyes

Economical - low levels required for improved barre coverage

Allows the use of many dyes having good wetfastness properties

Good barre coverage is achieved by proper dye selection and the use of BURCOLEV E, a barre preventative. BURCOLEV E is especially useful when dyes having good wetfastness, which tend to accentuate barre, must be employed.

BURCOLEV E can be used alone to prevent barre only, or together with BURCOLEV CTB Conc., leveling agent, for barre coverage plus dyestuff leveling.

Physical form: liquid

Ionic nature: anionic

pH on dilution: (1%) essentially neutral

At use dilution: forms clear solutions

Color: amber

Odor: mild

Compatibility: compatible with acid dyes and chemicals
normally used in dyeing nylon

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOLEV HTP:

Leveling Agent for Dyeing Polyester

BURCOLEV HTP represents a unique polyester dyeing auxiliary from Burlington Chemical. By its specific action, BURCOLEV HTP prevents unlevel dyeings due to (a) different strike rates of dyes, (b) preferential absorption of dyes to various parts of the fiber, and (c) temperature variation in the dye machine.

By equalizing dye strike throughout the heating period, BURCOLEV HTP promotes migration. The net result is shorter dye cycles, increased production and overall economy.

BURCOLEV HTP can also be used as a leveling agent for disperse dyeing of nylon and "carrierless dyeable" polyester.

Features:

- * Excellent performance in dyeing automotive fabrics.
- * Eliminates the need for a carrier in H.T. dyeing.
- * Does not effect the dispersing properties of disperse dyestuffs.
- * Provides limited lubrication.
- * Provides non-permanent antistatic effect.
- * Virtually non-foaming.
- * Minimizes dye rate barre.

Typical Properties:

Physical form: clear, yellowish liquid

Ionic nature: nonionic/ampholytic

Chemical type: fatty ethoxylate

Solubility: dispersible up to 5-10%

pH (1% solution): 6-8

BURCOLEV PBF:

For level dyeing of filament or textured polyamide yarn, fabrics and carpets with acid dyestuffs.

The presence of BURCOLEV PBF in the dyebath together with careful selection of acid dyestuffs insures extremely level dyeing with good coverage of barre and warpiness.

BURCOLEV PBF is an anionic leveling agent possessing good affinity for nylon at low temperatures. The product serves to block off dye sites with higher affinity prior to exhaustion of the dyestuff. The results is an even build-up of shade with controlled exhaustion and good leveling action. Subsequent shading poses no problems since dyestuff additions can be made as in conventional dyeing procedures.

BURCOLEV PBF aids also in covering irregularities arising from affinity differences introduced in the processing of the yarn or fabric construction.

Characteristics:

Chemical nature: Anionic alkyl benzene sulfonate derivative

Appearance: Amber liquid, mild aromatic odor

Solubility: Readily diluted in water in all proportions

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO LUBRICANT CWN:

BURCO LUBRICANT CWN is different than any other on the market today. It combines a complex polymer system with a high molecular weight ester to form a synergistic union that is unsurpassed in reducing or eliminating cracks and abrasion problems in processing filament yarns. The mechanism is as follows: the polymer complexes or actually changes the dye bath water into a water of hydration for the polymer. This builds the viscosity of the water to the point that it forms a cushion around each fiber. The ester portion remains on the fiber after processing aiding in handle, sewability and soil releasing.

BURCO LUBRICANT CWN is a special lubricant for prevention of crack and crease marks in piece goods and yarns, and for prevention of picks and pulls in hosiery dyeing.

BURCO LUBRICANT CWN can be used pressure or atmospheric. BURCO LUBRICANT CWN is suitable on jets. BURCO LUBRICANT CWN has leveling action reducing crossovers in package dyeing. BURCO LUBRICANT CWN improves flow on beam dye machines.

BURCO LUBRICANT CWN has been found effective in dyeing cotton, nylon, acrylic, polyester and rayon. Virtually all fibers and all dyestuffs are compatible with BURCO LUBRICANT CWN.

Physical Properties:

State: pale yellow liquid

pH: approx. 6.0

Chemical nature: mixture of polymers and esters

BURCO LUBRICANT SG:

It combines a complex polymer system with a high molecular weight ester to form a synergistic union that is unsurpassed in reducing or eliminating cracks and abrasion problems in processing filament yarns.

BURCO LUBRICANT SG is a special lubricant for prevention of crack and crease marks in piece goods and yarns, and for prevention of picks and pulls in hosiery dyeing.

BURCO LUBRICANT SG can be used pressure or atmospheric. BURCO LUBRICANT SG is suitable on jets. BURCO LUBRICANT SG has leveling action reducing crossovers in package dyeing. BURCO LUBRICANT SG improves flow on beam dye machines.

BURCO LUBRICANT SG has been found effective in dyeing cotton, nylon, acrylic, polyester and rayon. Virtually all fibers and all dyestuffs are compatible with BURCO LUBRICANT SG.

Physical Properties:

State: pale yellow liquid

pH: approx. 6.0

Chemical nature: mixture of polymers and esters

Solubility: Completely soluble in water. Solvents must be screened.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO MSP-NP LIQUID:

BURCO MSP-NP LIQUID is a versatile liquid buffer offering similar buffering characteristic to monosodium phosphate under dyehouse and wet processing conditions. BURCO MSP-NP LIQUID is phosphate free.

Suggested usages:

1. 1:1 replacement for monosodium phosphate in dyeing and finishing systems for textile.
2. Water softener for acid or basic systems.
3. Buffering complex for use in detergent formulations - light to medium duty.

BURCO NBS LIQUID:

Polymer organic acid, anionic

Properties:

Appearance: Clear, almost colorless, viscous liquid

Solubility: BURCO NBS LIQUID can be diluted with any chosen amount of warm or cold water. The stock solution of 5% or 10% stays clear.

Stability: The product is stable to alkalis and electrolytes in the concentration range used in the dyehouse.

BURCO NBS LIQUID is compatible with anionic and nonionic products. In acidic or neutral medium precipitations may occur with cationic auxiliaries.

Reaction: pH 7-8 (1% solution)

Action:

BURCO NBS LIQUID has an excellent dispersing action to all impurities of cotton, which precipitate in alkaline medium. The dispersing power enhances the sequestering properties of the product far over the equivalence.

This results in higher efficiency compared to the usual sequestering agents such as EDTA, NTA, and DTPA. Another advantageous difference to this kind of sequestering agent is the diminished aggressiveness towards metals and metal ions. Ions of Cu and Cr in metallized Reactive and Direct dyestuffs are not attacked by BURCO NBS LIQUID, dye shade and fastness of reactive dyes or direct dyestuffs which contain complexed metal ions, and are therefore not impaired.

BURCO NBS LIQUID does not retain dyestuff and does not foam in the dyebath because it is not a surfactant.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO NP-Q SALT:
Complex Alkali Derivative

BURCO NP-Q SALT is a replacement for trisodium phosphate, caustic soda or sodium carbonate in reactive dyeing.

BURCO NP-Q SALT is a complex salt containing inorganic and organic acids and bases.

Normal running procedure for reactive dyes generally recommends amounts of trisodium phosphates for fixation. Tests using BURCO NP-Q SALT show that an equal degree of fixation is obtained with 1/2 the recommended amount of TSP crystals for reactive dyes.

Physical Properties:
2% pH: 12.4
Specific gravity: 1.540
Lbs/gal: 12.85

BURCO N3C:

BURCO N3C is a scouring agent and bleaching assistant for use under multiple dyehouse conditions where an economical, but highly effective product is needed.

The major characteristics of BURCO N3C are a result of its complex blends of phosphated alcohols, esters and nonionic detergents. A complete range of HLB's are covered by BURCO N3C, giving it superior scouring power on cellulosic fibers.

As a bleaching assistant for continuous and batch bleaching, BURCO N3C withstands the alkaline conditions of the chlorine, chlorite, or peroxygen bleaching systems, leaving goods absorbent, soft and oil and wax free. It is a fast wetter under all conditions. BURCO N3C, with its emulsifying and suspending properties is very effective in keeping natural waxes and oils in suspension.

Characteristics:

- * Good bleach bath stability
- * Covers a wide range of HLB's
- * Levels cellulosic dyestuffs
- * Fast wetting speeds
- * Has excellent lubricating properties

Physical Properties:
State: clear liquid
Odor: ester
1% pH: 7.5-8.0
Cloud point: over 212F aqueous
1% wetting speed: instant

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO PAW:

A "Permanent" Cationic Retarder for Cationic Dyes on Acrylic Fibers

BURCO PAW is a retarding agent for the dyeing of acrylic fibers with cationic, e.g., BURCOCRYL dyes. As a cationic substance, it competes with the dyestuff for available dye sites on the fiber, and facilitates uniform dye uptake by the acrylic fiber.

Physical Characteristics:

Consistency: Clear liquid

Color: Pale yellow

Type: Cationic quaternary compound

pH (10%): 6.0 to 8.0

Solubility: Readily soluble in water

BURCO PAW is especially effective in promoting level dyeing of cationic dyes which have a medium strike rate, i.e. dyes with combination constants (K-values) between 2.5 and 3.5.

BURCO PEL:

A low foaming dispersing and leveling agent for the dyeing of polyester fibers with disperse dyes under H.T. conditions.

Nature: Mixture of ethylene oxide condensation products and anionic components.

Physical Properties: Amber colored viscous liquid; readily soluble in cold water.

Application: BURCO PEL improves the dispersion stability and migration properties of disperse dyestuffs in dyeing polyester under H.T. conditions. BURCO PEL exerts a slight retarding effect which is especially beneficial when dyeing light shades.

Special Properties: BURCO PEL aids in suspending trimers in the dye bath and this allows better removal of the trimers after completion of the dyeing cycle.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOPOWER CP-RB:

BURCOPOWER CP-RB is an oxidative alkali, a dry peroxygen compound.

Properties/Specifications:

Chemical product: Dry peroxygen compound

Form: White granules

Solubility in water: Excellent

The built-in alkalinity of this peroxygen bleaching agent offers applications in the following areas:

- a. One bath bleach and dye system for cotton blends.
- b. Bleach bottom applications
- c. Vat dye oxidation
- d. Anti-chlor
- e. Additive for scour/bleach procedures

BURCOPOWER CP-RB is safe at all temperatures and concentrations, and is safe on all fabrics.

BURCO REDUCT T:

Uses:

Clearing/stripping of dyes fabrics and yarns

Reduction of vat dyes

Post cleanup of polyester yarns and fabrics

Bleaching of nylon

Attributes:

Lower flammability and smoldering properties than sodium hydrosulphite 70%

De-dusted

Stabilized with alkalis and buffers for longer action and storage life in solutions.

Is a blend of alkalis - it buffers sodium hydrosulphite and other reducing agents. Does not have the same negative hazardous aspects of sodium hydrosulphite, but if used properly, it will produce the same results.

Characteristics:

Chemical nature: stabilized blend of sodium hydrosulphite and other useful reducing agents

Physical form and color: white powder

pH (2% solution): 10.0-10.5

Solubility: excellent

Stability as a solution:

acid: poor

alkaline: excellent

Storage stability: excellent as a dry powder

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO RESERVE SALT G:

Anionic, mild oxidizing agent, applicable where reduction of dyes is to be prevented.

Dyeing and printing with reactive dyes.

Discharge printing of direct dyed ground shades.

Boiling-off of colored, woven piece goods

Application Concentrations:

0.5-1 lb./100 gals. in long liquor ratios

10 lb./100 gals. in padding liquors

Specifications:

Physical State: Powder

Solubility: Water soluble

Active Content: 98-100%

pH 1% solution: 7-8

Specific Gravity:

Bulk Density: 6#/gallon

BURCO SCOUR CS-LF:

BURCO SCOUR CS-LF is a complex mixture of Anionic and Nonionic Linear surfactants and solvents providing caustic stable wetting and detergent properties.

BURCO SCOUR CS-LF has very little foam at processing temperatures greater than 150 degrees F.

BURCO SCOUR CS-LF is unique due to its caustic stable, low foaming action. BURCO SCOUR CS-LF is a superior scouring agent optimizing excellent detergent properties.

BURCO SCOUR CS-LF offers a distinct advantage for continuous, semi-continuous and jet bleaching and preparation.

Appearance: Slightly yellow to clear liquid micro emulsion

% Activity: 50%

Caustic Stability: Good

Wetting: Good

1% pH: 8-10

BURCO SCOUR CS-LF contains only linear alcohol phosphates and nonionics. Based on literature evaluations this product should be fully biodegradable.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):**BURCO SCOUR LF 100:**

Physical Properties: Clear liquid

Chemical Properties: Nonionic detergent surfactant

Scope of Application:

BURCO SCOUR LF 100 is a low foaming nonionic surfactant for scouring out yarn finish, lubricants, knitting oils, soil, etc. from all synthetic fibers and is especially recommended for texturized polyester fibers. Because of its low foam formation, BURCO SCOUR LF 100 is used wherever conventional surfactants are unsuitable because of excessive foaming; for example, on Gaston County Jets and high speed continuous washing machines with intensive bath agitation.

BURCO SCOUR LF 100 is ideally suited for one-bath scouring and dyeing of texturized polyester fibers under pressure or atmospheric conditions giving residual extractables of approximately 0.1%. Where some foam formation is required for proper processing (e.g., ballooning piece goods in a dye beck) the addition of a foam producing agent may be required.

BURCO SCOUR LF 100 offers the following advantages:

- * Good degreasing properties
- * Very good detergency for a wide assortment of soils
- * Very low foam formation

BURCO SCOUR VAR-DF3:

Solvent-based scouring agent

BURCO SCOUR VAR-DF3 is a unique and versatile solvent-based detergent developed for the scouring of all synthetic and natural fibers and their blends. It is also highly successful in one-bath dyeing/scouring processes.

BURCO SCOUR VAR-DF3 is particularly effective for J-Box and Kier bleaching, and for prescouring, of 100% cotton and polyester/cotton blends. It combines the solvents and emulsifiers to penetrate and remove troublesome oils and waxes by holding them in suspension, thus preventing any redeposit on the fabric.

BURCO SCOUR VAR-DF3 has very high oil solubilizing properties.

Important Advantages:

- * Excellent detergency
- * Fast wetting and penetration
- * Good solvent action for wax and oil removal from cotton and polyester/cotton blends.
- * Recommended for one-bath scour and bleach, or scour and dye applications.
- * Excellent emulsion characteristics

General Properties:

Chemical nature: aromatic solvent in a surfactant system

Physical form: liquid solvent

Ionic nature: anionic/nonionic

Color: off-white to yellow

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOSOFT HDP is a high density polyethylene emulsion that is recommended for use as a softener, abrasion aid and sewing lubricant for resin-treat and synthetic goods.

Properties:

Appearance: Opaque, light tan liquid
Ionic nature: Nonionic
Nonvolatile content: 25-27%
Density, lbs/gal: 8.4
pH, product: 9.0
Disperses readily in cold water.
Compatible with most textile auxiliaries encountered.

Recommended Usage:

Apply 0.1 - 0.25% solids (0.4 - 1.0% of product) via resin pad bath or as topping softener on harsh goods.

BURCOSPERSER SALT HA:

Powder and Liquid
Anionic Dispersing Agent for Disperse Dyes

BURCOSPERSER SALT HA is an efficient anionic dispersing agent for disperse dyes. It ensures dyebath stability, particularly under the high stress conditions encountered in beam, package and jet dyeing.

BURCOSPERSER SALT HA is also an effective aid in preparing disperse dyes prior to addition to the dyebath since it aids wetting and enhances the function of the dispersant normally present in the dyes. Its low foaming characteristics makes it suitable for all types of dyeing equipment.

Important Advantages:

- * No effect on shade or fastness properties
- * Helps assure speck-free dyeings
- * Helps prevent dye agglomeration from building up on equipment
- * Effective under both atmospheric and high temperature conditions
- * Easy to handle in powder or liquid form

General Properties:

Chemical Description: condensed sodium salt of naphthalene sulfonate

	Powder:	Liquid:
Physical Form:	tan, free flowing	brown liquid
Ionic nature:	anionic	anionic
pH (typical)	10% sol. pH 7-8	as is pH 7-9
Solubility:	readily soluble in water	miscible in water to all proportions

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):**BURCO STABILIZER 35:**

Hydrogen peroxide bleaching is a process of controlled oxidative decomposition. BURCO STABILIZER 35 controls the decomposition of alkaline H_2O_2 , freeing the bleaching moiety OOH to be formed, and then stabilizing this bleaching anion so that it remains in the bleach bath long enough to effectively do its job.

BURCO STABILIZER 35 is used in low concentrations.

BURCO STABILIZER 35 eliminates the need for any form of alkaline silicates or chelates.

BURCO STABILIZER 35 containing scouring and wetting agents, is compatible with most scouring systems.

Physical Properties:

Chemical nature: complex blend of polymer and organic salts

Physical state: light amber liquid

Odor: mild

pH (1% solution): 3.5-4.0

Ionic nature: anionic

Dilution: readily dispersible in water at all temperatures.

BURCO TANNIC ACID:

Fixing Agent

A new purified BURCO TANNIC ACID has excellent fixing properties for improving the wetfastness of dyed nylon. Its high purity allows increased percentage of fixed tannin on the fiber and greater fastness of dyed material.

Special Characteristics:

- * Excellent solubility and clarity
- * Excellent wetfastness results with unusually clean fibers
- * Minimum alteration of shade compared to normal grades of BURCO TANNIC ACID
- * High purity
- * Economical, excellent money value

General Properties:

Chemical description: high purity BURCO TANNIC ACID

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCO TDO:

Textile Reducing Agent

BURCO TDO is a powerful new reducing agent for textile applications. It replaces conventional reducing agents such as sodium hydrosulfite in many processes offering economy, improved safety, and ease of handling while requiring far less storage space.

Advantages:

- * Efficiency - greater reduction potential than hydro at a fraction of the amount used.
- * Safety - nonflammable, no ignition on impact, no yellow label.
- * Stability - solutions are far more stable than hydro solutions; excellent for continuous operations; need for periodic adds of reducing agent are greatly reduced.
- * Space Saving - since BURCO TDO is used at 1/5 to 1/10 of hydro levels, much less storage space is needed.
- * Low odor - no sulfurous fumes generated.

Typical Properties:

Principal Component: Thiourea dioxide

Appearance: White crystals

Odor: Virtually odorless

BURCOVEL C:

BURCOVEL C is an economical, cationic softener which may be used on a wide variety of fabrics. It is especially useful as a softener for denim.

Typical Properties:

Appearance: Soft, fluid paste

Color: Light amber

Chemical Type: Complex fatty amido quaternary

Ionic Character: Cationic

pH (5% solution): 5.0-6.0

Activity: 100%

Applications:

BURCOVEL C may be used on a wide variety of natural and synthetic fibers and blends including cotton, nylon, polyester, acrylics, and polyester/cotton blends. It provides excellent softness, lubricity, and drapability. It has good resistance to discoloration from heat, ageing, and ultraviolet light. Unlike many other cationic softeners, it does not reduce the absorbency of fabrics treated with it. BURCOVEL C imparts antistatic and antidusting properties as well as softness.

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):**BURCOVEL N PLUS:**

BURCOVEL N PLUS is a unique nonionic softener and lubricant that imparts a slick cationic type hand to cotton and polyester/cotton fabrics and may be used as a replacement for silicone softeners. The product has excellent durability to successive washing of plain or resin finished fabrics and will not cause yellowing or shade change. It is compatible with a wide range of finishing auxiliaries and imparts improved sewing, dusting and appearance rating properties to finished fabrics.

BURCOVEL N PLUS is especially suited for the finishing of cotton and polyester/cotton packages. It adds extremely efficient lubricants for backwinding and offers good leveling properties.

Characteristics:

- * Imparts uniquely slick smooth hand when compared to competitive nonionic softeners.
- * Extremely high resistance to scorch, elevated temperature yellowing and discoloration due to oxidation.
- * Excellent for finishing goods prior to printing.
- * Replaces silicone softeners to reduce finishing costs.
- * Improves dusting and imparts antistatic properties.
- * Improves uniformity of dyed goods upon finishing.
- * Excellent durability on finished goods to successive washings.
- * Excellent softener and lubricant for yarns and fibers.

Physical Properties:

Appearance: milky, white liquid
Ionic nature: nonionic
pH (1% solution): 6.5-7.5
Lbs. per gallon: 8.3
Solids: 20%
Solubility: Instant in tap water

BURCOWET AVT:

Assistant for pad-steam dyeing of fabrics, carpets, knit-de-knit and tapes, as well as seatbelt type webbing. It promotes wetting out during padding, prevents frostiness and promotes a level distribution of acid and neutral-premetallized dyes during steaming.

BURCOWET AVT has good emulsifying properties and thereby controls lubricants contained in greige goods.

Important Advantages:

- * Fast wet-out of goods
- * Excellent assistance for penetration of dyes
- * Prevents skittery and frosty dyeings
- * Yields level and reproducible shades
- * Excellent detergent action on oily greige goods and final soaping

General Properties:

Physical form: Clear, yellow to amber liquid
Chemical description: Solubilized aliphatic hydrocarbons
Ionic nature: Non-ionic

BURLINGTON CHEMICAL CO., INC.: Chemicals for the Textile Industries(Continued):

BURCOWET 100:

BURCOWET 100 is a nonionic wetting agent that is non-yellowing and offers high penetration for narrow fabrics finishing.

BURCOWET 100 is a mixture of ethoxylated alcohol and other nonionic wetting agents.

BURCOWET 100 offers good detergent and suspending properties when used in conjunction with PVA, PVAC, and Melamine resins for finishing purposes.

Physical Properties:

Appearance: Clear liquid

Odor: Fatty Alcohol

pH: 6-8

Usage Levels:

BURCOWET 100 should be used in finishing baths at concentrations of 10 - 100 g/l.

BURCOWHITE SM Conc.:

BURCOWHITE SM Conc. is an oxidative alkali, a dry peroxygen compound developed to be an ideal textile persalt.

Properties/Specifications:

Chemical Name: Sodium Carbonate Peroxyhydrate

Formula: $2\text{Na}_2\text{CO}_3 \cdot 3\text{H}_2\text{O}_2$

Form: White granules

Available oxygen: 13% by weight minimum

Solubility in water: 140 g/l @ 24C

pH (1% solution): 10.5

Density: 1.1-1.25 g/cc (75 lbs/cu.ft.)

Iron: 10 ppm maximum

Molecular weight: 314

Free moisture: 0.1% by weight

The built-in alkalinity of this peroxygen bleaching agent offers applications in the following areas:

- a. Bleach bottom applications
- b. Clearing of disperse dyes
- c. Bleaching after dyeing with reactive dyes
- d. Shade reduction (stripping) of acid/direct dyes
- e. Cold pad-batch bleaching
- f. Vat dye oxidation
- g. Anti-chlor
- h. Additive for scour/bleach procedures

BURCOWHITE SM Conc. is safe at all temperatures and concentrations, and is safe on all fabrics.

CAPITAL CITY PRODUCTS CO.: CAPITAL Fatty Acids:

CAPITAL fatty acids are a line of high quality acids derived from vegetable oils.

Fatty acids and their derivatives have a place in practically all phases of modern living. They add needed qualities to pharmaceuticals, cosmetics and other personal care products. They improve the performance of paints, lubricants, textiles, detergents and rubber products.

One important advantage in the use of fatty acids, as compared to whole oils, is that type-for-type they are more reactive and permit faster and more complete saponification, esterification or other reactions.

Typical Specifications:**CAPITAL 160:**

Color Gardner Max.: 6
Sap. Value: 250-260
Iodine Value: 25 max.
Acid Value: 250-260
Titer C: 22-26
Source Oil: Coconut

CAPITAL 170:

Color Gardner Max.: 4
Sap. Value: 260-270
Iodine Value: 8-16
Acid Value: 258-268
Titer C: 22-26
Source Oil: Coconut

CAPITAL 180:

Color Gardner Max.: 1
Sap. Value: 262-272
Iodine Value: 8-15
Acid Value: 260-270
Titer C: 22-26
Source Oil: Coconut

CAPITAL 220 (low IV):

Color Gardner Max.: 1
Sap. Value: 266-276
Iodine Value: 6 max.
Acid Value: 264-274
Titer C: 23-27
Source Oil: Coconut

CAPITAL 172:

Color Gardner Max.: 6
Sap. Value: 196-206
Iodine Value: 122 min.
Acid Value: 195-205
Titer C: 26-30
Source Oil: Soya

CAPITAL CITY PRODUCTS CO.: CAPITAL Fatty Acids(Continued):

Typical Specifications:

CAPITAL 182(Alkyd):

Color Gardner Max.: 3
Sap. Value: 198-207
Iodine Value: 125 min.
Acid Value: 195-205
Titer C: 26-30
Source Oil: Soya

CAPITAL 184:

Color Gardner Max.: 5
Sap. Value: 196-216
Iodine Value: 85-100
Acid Value: 195-215
Titer C: 27-31
Source Oil: Mixed

Typical Fatty Acid Chain Distribution:

CAPITAL 160:

C8: 4/C10: 5/C12: 34/C14: 18/C16: 14/C18: 4/C18-1: 18/C18-2: 3

CAPITAL 170:

C8: 7/C10: 7/C12: 49/C14: 17/C16: 10/C18: 2/C18-1: 7/C18-2: 1

CAPITAL 180:

C8: 7/C10: 7/C12: 51/C14: 16/C18: 2/C18-1: 6/C18-2: 2

CAPITAL 220:

C8: 5/C10: 6/C12: 55/C14: 19/C18: 2/C18-1: 5/C18-2: 1

CAPITAL 172:

C16: 17/C18: 4/C18-1: 28/C18-2: 49/C18-3: 2

CAPITAL 182:

C16: 13/C18: 4/C18-1: 28/C18-2: 52/C18-3: 3

CAPITAL 184:

C8: 1/C10: 1/C12: 7/C14: 3/C16: 14/C18: 7/C18-1: 33/
C18-2: 31/C18-3: 3

CNC CHEMICAL CORP.: Catalysts for Thermosetting Resin:**CNC CATALYST CC:**

Amine hydrochloride catalyst for urea formaldehyde resins

Properties:

CNC CATALYST CC represents an organic catalyst solution of a common nature that has been accepted in the textile industry as a mild catalyst for resins for many years. It is extremely stable for long periods of time in resin baths at temperatures not normally encountered. Being a neutral material, no variation in finishing bath occurs from beginning of a run to the end.

CNC CATALYST CC presents no compatibility problems with materials regularly used in the resin bath. Many metallic salt catalysts do tend to be unstable in the presence of some softeners and emulsions.

Specifications:

Chemical nature: Amine hydrochloride solution

pH: 7.5

Appearance: Clear, yellow liquid to water white

Density: 8.8

Application:

The required amount of CNC CATALYST CC can be added directly to the resin bath because it is completely soluble.

CNC CATALYST FC:

CNC CATALYST FC is a special catalyst for use with low formaldehyde release resins, i.e. CNC REZ LFR.

Specifications:

Appearance: Clear, odorless liquid

pH: 0.8-1.0

Specific Gravity: 1.221

Chemical nature: Buffered metallic complex blend

Application:

As a general rule, 20% CNC CATALYST FC based on total amount of resin in bath is suggested. Normal resin cure will insure excellent wash and wear. Very low formaldehyde release with little or no shade change.

CNC CHEMICAL CORP.: Catalysts for Thermosetting Resin(Continued):

CNC CATALYST PM:

CNC CATALYST PM is a metallic salt accelerator designed as the complete catalyst for use with thermosetting resins. This catalyst is especially efficient for use with modified urea-formaldehyde, glyoxal, ethylene urea, triazone and melamine-formaldehyde resins.

Properties:

CNC CATALYST PM is a free-flowing liquid metallic salt.

CNC CATALYST PM has less tendency to cause discoloration of whites on cotton, rayon and synthetics than other inorganic or organic materials.

The thermosetting resin/CNC CATALYST PM combination has outstanding bath stability.

Specifications:

Chemical nature: Metallic salt solution

Appearance: Clear, free-flowing liquid

pH: 6.6

Density: 10.5 lbs. per gallon

Application:

As a general rule of thumb, 40% of CNC CATALYST PM based on the total solids of the finishing bath is used.

CNC CATALYST ZA:

A fast acting accelerator for silicone water repellents

Specifications:

Appearance: Clear amber colored liquid

Chemical nature: Water soluble metallic salt solution

pH: 4

Weight per gallon: 9.3

Application:

CNC CATALYST ZA should be added to the finishing bath after the silicone water repellent has been dissolved in the bath.

CNC CHEMICAL CORP.: Catalysts for Thermosetting Resin(Continued):**CNC CATALYST ZNG:**

CNC CATALYST ZNG is an organic catalyst designed primarily for use with reactant-type, thermosetting resins to produce high crease resistance and chlorine resistant effects on treated fabrics. This catalyst is fully compatible with all of the thermosetting resins, durable water repellents, cationic and non-ionic softeners. A longer bath life is the rule with this buffered catalyst. Naturally good bath life goes hand in hand with a scum-free bath and less spotting and pick-off.

Specifications:

Chemical nature: Buffered zinc nitrate salt
pH: 3.6
Specific gravity: 1.260
Appearance: Clear, free-flowing liquid

CNC QUIKSET:

CNC QUIKSET is a special catalyst for use in the SUPERKLEEN Plus system. This accelerator is one of the key components to be used in conjunction with SUPERKLEEN, SUPERKLEEN EXTENDER and CNC REZ REACTANT for one-bath soil-release finishes.

Outstanding Properties:

1. Good bath stability between catalyst and components of SUPERKLEEN system.
2. Complete cross-linkage between SUPERKLEEN, QUIKSET and fiber.
3. Very good resistance to yellowing.

Specifications:

Appearance: Clear, water-thin liquid
Chemical nature: Blended metallic complex
pH: 3.5
Density: 10.4 lbs. per gallon

CNC QUIKSET P:

A fast curing catalyst designed for medium to low temperature fixation of thermoplastic resins.

Outstanding Properties:

1. Complete cross-linkage between fiber and resin at temperatures between 270 and 290F.
2. Good bath stability.
3. Improved wash fastness of thermoplastic resin.

Specifications:

Appearance: Water white liquid
Chemical nature: Ammonium salt of a sulfonic acid
pH: 4-6
Density: 8.7 lbs. per gallon

CNC CHEMICAL CORP.: Detergents:

CNC Detergent E:

CNC Detergent E is an anionic surface active agent with high detergency, wetting and rewetting properties. It is an excellent product for practically all phases of textile scouring and dyeing operations. CNC Detergent E is recommended as a boil-off compound, print washing compound and as a rewetting agent for compressive shrinkage operations. In addition to its outstanding detergency properties, CNC Detergent E produces a soft, lofty hand in any fabric which is scoured with this product.

Outstanding Properties:

CNC Detergent E as supplied is a viscous liquid which is readily soluble in warm water. It is anionic in nature. CNC Detergent E is recommended for use as a scouring agent for wool fabrics and as a dyeing assistant with acid dyestuffs in application to wool fabrics. It is also an excellent dyeing assistant with direct colors and is particularly effective in washing printed goods because it has a tendency to soften the fabric and leaves the goods in a highly absorbent condition for finishing. CNC Detergent E is also a good scouring agent for synthetic materials such as rayon, acetate, nylon, dacron and similar fibers.

Specifications:

Chemical Nature: Coconut fatty acid amine condensate--
anionic in nature.

Appearance: Viscous amber liquid
pH (1% solution): 9.8

Application:

CNC Detergent E is quite effective when used alone. Its efficiency may be improved, however, by combining it with alkalies and sequestering agents, particularly if a hard water condition exists.

CNC GEL:

CNC GEL is a very stable anionic detergent for all-purpose scouring, wetting and dispersing. Because of its good stability, it may be used in the presence of hard water, mild acids and alkalies, and metallic salts. Many plants running disperse dyes use this material for pasteing and dispersing the dyestuffs.

Properties:

1. Excellent stability in presence of contamination.
2. Good kier boiling agent.
3. Good foam-head on jig or beck operations.
4. Will suspend excess print color and paste during open soaper scouring.

Application:

A concentration of 0.25% to 0.5% based on the weight of the fabric or 0.05% to 0.1% on the bath is a good starting point.

CNC CHEMICAL CORP.: Detergents(Continued):**CNC GEL CONC.:**

CNC GEL CONC. is a very stable anionic detergent for all-purpose scouring, wetting and dispersing. Because of its good stability, it may be used in the presence of hard water, mild acids and alkalies, and metallic salts. Many plants running disperse dyes use this material for pasting and dispersing the dyestuffs.

Properties:

1. Excellent stability in presence of contamination
2. Good kier boiling agent
3. Good foam-head on jig or beck operations
4. Will suspend excess print color and paste during open soaper scouring.

Application:

A concentration of 0.25% to 0.5% based on the weight of the fabric or 0.05% to 0.1% on the bath is a good starting point. CNC GEL CONC. not only removes extraneous matter from the goods, but also suspends and prevents this material from re-depositing on the clean fabric.

CNC SOL BD:

CNC SOL BD is a combination of solvent and emulsifiers for the removal of waxes, greases, oils and greige-mill dirt from cotton, rayon and blends.

Properties:

1. Forms a very stable emulsion when added to water.
2. Is free rinsing.
3. Possesses excellent detergency, wetting and emulsifying properties.

Specifications:

Chemical nature: Solvent surfactant blend
pH: 8.0-8.5
Appearance: Clear, free-flowing liquid

Application:

CNC SOL BD is normally used in conjunction with alkaline builders and non-ionic detergents for the scouring of fabrics of all weight when grease and oil is a problem. A concentration of 1% to 5% of the product based on scouring volume should be sufficient to cover almost all scouring situations. Normally, a scouring temperature not exceeding 175F. is recommended. This product does not in any way present a fire hazard when being run on open width equipment, burlington units, dyebecks or jigs.

CNC CHEMICAL CORP.: Detergents(Continued):

CNC SOL XNN #11:

CNC SOL XNN #11 is a combination of high powered solvents and emulsifiers for the removal of waxes, greases, oils and greige-mill dirt from cotton, rayon and blends.

Properties:

1. CNC SOL XNN #11 forms a very stable emulsion when added to water
2. CNC SOL XNN #11 is free rinsing.
3. CNC SOL XNN #11 possesses excellent detergency, wetting and emulsifying properties.

Specifications:

Active Matter: 100%

Chemical nature: Solvent surfactant blend

pH: 8.0 - 8.5

Appearance: clear, free-flowing liquid

Application:

CNC SOL XNN #11 is normally used in conjunction with alkaline builders and non-ionic detergents for the scouring of fabrics of all weight when grease and oil is a problem. A concentration of 1% to 5% of the product based on scouring volume should be sufficient to cover almost all scouring situations. Normally, a scouring temperature not exceeding 175F is recommended. The product does not in any way present a fire hazard when being run on open width equipment, burlington units, dyebecks or jigs.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants:**CNC ANTIFUME DF-10:**

CNC ANTIFUME DF-10 is a finishing agent for cellulose acetate and was developed for the purpose of protecting the dyed fabric from atmospheric gas fading.

Description:

CNC ANTIFUME DF-10 is a free-flowing liquid which is non-toxic. It is readily soluble in hot or cold water. It is very stable to storage.

Specifications:

Appearance: Free-flowing liquid
Chemical nature: Formamine compound
pH: 10 - 11

Application:

3.0% - 5.0% CNC ANTIFUME DF-10 (OWB) is dissolved in water and applied at 130F. CNC ANTIFUME DF-10 can be applied to acetate fabrics in the last rinse out of a jig, beam or beck-dyeing unit.

CNC ANTIMIGRANT A:

CNC ANTIMIGRANT A is a padding vehicle used to prevent the migration of dyes during processing and to keep the colorants evenly distributed on the surface of the fabric.

CNC CARRIER BFI:

CNC CARRIER BFI was designed primarily to make possible single step application on the dyeing of polyester, triacetate and acrylic fibers.

Specifications:

pH (1% solution): 8.0+-0.2
Appearance: Clear, amber colored liquid
Solubility: Forms good emulsion in water

Advantages:

1. Very stable emulsion at the boil.
2. Trouble free dyeing (no spotting)
3. Excellent fastness
4. Good dye penetration
5. Wide range of pH stability
6. Not affected by freezing

Application:

A starting formulation of 5% to 10% based on the weight of the fabric should be used at 100F. The amount used will be determined by the depth of shade desired and the bath ratio being used.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC CHLORITE:

CNC CHLORITE is a modified sodium chlorite product designed to give the excellent bleaching with fiber protection that is normal for sodium chlorite but with the added advantage of anti-corrosion properties to stainless steels and reduced hazards in handling.

Outstanding Properties:

1. Powerful bleaching action for cotton and synthetics
2. Built-in corrosion inhibitor
3. Greater stability to thermal decomposition
4. Less hazardous in use
5. High storage stability

General Information:

CNC CHLORITE is a white, dry, odorless powder containing 50% active bleaching material.

CNC DEFOAMER 544-C:

A defoamer made especially for jet and pressure dye machines.

Advantages:

1. A very stable emulsion
2. Will not spot goods
3. Effective foam control during entire dye cycle; from heat up to cool down to depressurization.
4. Minimal effects on flammability.

Specifications:

Chemical nature: blend of silicone glycol polydimethyl siloxane and silica

Appearance: thin, white emulsion

pH: 7.0+-0.5

Viscosity: 1000+-200 cps

Application:

For use in jet dyeing, the recommended levels are from 300 to 2000 ppm based on the total dye liquor (.03% to .2%).

CNC DISPERSANT WB CONC.:

An all purpose leveler, dispersant and dyeing assistant.

Specifications:

Appearance: Amber liquid

Solubility: Excellent

pH - 5% solution: 7.5

Chemical nature: Anionic Surfactant

Application:

CNC DISPERSANT WB CONC. is simply added to the boil-off or dye bath at a rate of 0.5% to 3.0%.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC DYE ASSIST N-O:**

CNC DYE ASSIST N-O is a readily emulsified low odor carrier for atmospheric dyeing of polyester fibers. Excellent color yield and leveling are obtained with low use levels of CNC DYE ASSIST N-O.

Properties:

Appearance: clear liquid
Color: yellow
Chemical type: liquid biphenyl
Ionicity: chiefly non-ionic

Major Advantages:

Low odor
Low cost
High yields with low carrier concentrations
Readily emulsifiable
Excellent leveling

CNC DYE ASSIST N-O exhibits excellent leveling properties under atmospheric dyeing conditions. Excellent dye yields with no adverse effect on light fastness are produced. CNC DYE ASSIST N-O creates a stabilizing effect on the dispersion of many disperse dyes because of its unique emulsification system.

CNC DYE ASSIST VE:

A dyeing assistant for modacrylics and polyester

Specifications:

Chemical nature: non-ionic self-emulsifiable solvent
Appearance: clear liquid
Solubility: emulsifiable in water in any proportion
Density: 8.8 pounds per gallon

Application:

CNC DYE ASSIST VE is a self-emulsifiable liquid carrier and dyeing assistant for modacrylics in general. Because of its non-ionic nature, it can also be used in dyeing basic dyable polyester with good reserving action.

In dyeing modacrylics, the product is simply prediluted in water at 120F. This auxiliary should be added as part of the standard dyebath formulation prior to the introduction of any of the dyestuffs.

Concentrations of CNC DYE ASSIST VE will vary from 0.5% for light shades to 5.0% - 6.0% for heavy shades.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC FIX & CNC FIX CONC.:

Cationic Dye Fixative

Specifications:

pH: 4.6

Specific gravity: 1.220

Appearance: Clear, semi-viscous liquid

Solubility: Water at room temperature

Density: 9.58 lbs. per gallon

Properties:

1. Shows a minimum of shade change on treated fabrics.
2. A cationic resinous-type fixative for direct colors on cotton and rayon.
3. Reduces bleeding and crocking.
4. Increases fastness to washing and perspiration (acid and alkaline).
5. May be applied as a final rinse after dyeing or may be included as a component of the finishing mix.

Application and Uses:

CNC FIX CONC. is applied in the final rinse of jig or dye beck.

CNC FIX CU:

Specifications:

pH: 4.6

Appearance: Free flowing green liquid

Solubility: Water at room temperature

Density: 9.58 pounds per gallon

Properties:

CNC FIX CU shows a minimum of shade change on treated fabrics.

CNC FIX CU is a cationic resinous type fixative containing copper acetate for direct colors on cotton rayon.

CNC FIX CU reduces bleeding and crocking.

CNC FIX CU upgrades wash properties compared with regular cationic dye fixatives.

CNC FIX CU increases fastness to perspiration (acid and alkaline).

CNC FIX CU may be applied as a final rinse after dyeing or may be included as a component of the finishing mix.

Application and Uses:

CNC FIX CU is applied in the final rinse on a jig or dyebeck.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC FIX NYL:**

CNC FIX NYL is a anionic dye fixative for acid dyes or nylon

Specifications:

Appearance: Semi-viscous liquid
Ionic nature: Anionic
Chemical nature: Resinous polymer
Solubility: In water in all proportions

Application Procedure:

1.0% - 2.0% CNC FIX NYL (owb) is a good starting point.

CNC INHIBITOR 30:

The unique properties of CNC INHIBITOR 30 affords the dyer and finisher of spandex containing fabrics full protection against atmospheric yellowing.

Advantages:

1. 4 to 5 ratings - color fastness to oxide of Nitrogen in the atmosphere. AATCC 23 - 1962.
2. 4 to 5 ratings - color fastness of oxides of Nitrogen in the atmosphere. Rapid control test AATCC 75 - 1957
3. No effect on shade (colors).
4. Does not harshen the hand of finished fabrics.
5. Compatible with thermosetting and thermoplastic resins.

Specifications:

Appearance: white emulsion
Solubility: excellent at all concentrations
pH: 8.5

Applications:

Beck, Beam, Pressure Vessel

CNC INHIBITOR MD:

CNC INHIBITOR MD is a water soluble resin additive to control formaldehyde fumes.

Advantages:

1. Will crosslink with free formaldehyde in a resin bath which results in reduced formaldehyde odor.
2. Reduces the risk of amine odors brought on by undercuring of thermosetting resins.

Specifications:

Appearance: Clear amber liquid
pH: 9.5
Chemical nature: Anionic organic blend

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC INHIBITOR SC:

A non-dusting auxiliary used in conjunction with sodium chlorite to suppress the chlorine dioxide fumes generated in bleaching.

Properties:

CNC INHIBITOR SC is fully compatible with sodium chlorite and surfactants.

CNC INHIBITOR SC reduces the amount of sodium chlorite needed to bleach a given fabric because the chlorine dioxide fumes do the job of bleaching; consequently, the fumes do not escape into the plant where they would be injurious to the workers.

CNC INHIBITOR SC acts as a builder with the surfactant to better promote scouring.

Specifications:

Appearance: White, free-flowing crystalline material

Dry matter: 100%

Chemical nature: Metallic buffer

Application:

CNC INHIBITOR SC is simply predissolved and added to the bleach bath.

CNC LEVELER 45:

CNC LEVELER 45 is an aqueous solution of a condensate of fatty alcohol with ethylene oxide.

Uses:

1. A vat dyeing assistant in low concentrations
2. A vat stripping agent at higher concentrations
3. A leveling agent for continuous vat dyeing and pad-jig work
4. A dispersing agent for disperse dyes when applied to nylon having no affinity for the nylon
5. An anti-precipitant in the dyeing of wool and acrylic fibers where a neutral dyeing acid and a basic dye is used in the same bath.

Specifications:

Appearance: A clear, amber liquid

pH (5% solution): 7.5

Application:

Vat Stripping: CNC LEVELER 45 retards the dyeing rate of vat colors in direct proportion to the concentration used.

Vat Dyeing: CNC LEVELER 45 is a good vat dyeing assistant at lower concentrations.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC LEVELER CPP:**

A water soluble leveling agent for acid dyes on nylon.

Specifications:

Chemical nature: Benyl sulfonate

Appearance: Amber liquid

Ionic nature: Slightly anionic

Advantages:

1. Does not severely retard dye cycle.
2. Soluble in water at all concentrations.
3. Controls uneven dyeing.
4. Excellent for repair work.

Dyeing Application: Jigs:

2%-4% (owb) CNC LEVELER CPP depending on the depth of shade.

Dyeing Application: Beams:

1%-3% (owg) depending on the depth of shade.

CNC LEVELER JH:

CNC LEVELER JH is a sulfated polyethylene glycol ester. It is of a low foaming nature and has excellent wetting and dispersing powers. It has outstanding compatibility with high concentration of acids, bases and salts and is useful in most phases of textile wet processing. It has excellent biodegradeable characteristics.

Specifications:

Form: Clear liquid

pH (5% solution): About 7.0 (neutral)

Solubility: Excellent in hard and soft water and concentrated salt solutions

Compatibility:

CNC LEVELER JH is compatible with high amounts of phosphoric and sulfuric acids; also with large amounts of sodium hydroxide and potassium hydroxide.

Applications:

CNC LEVELER JH is of particular interest as a wetting agent and penetrant and as a dispersing and leveling agent.

CNC LEVELER JH is often used to paste up all types of colors prior to dissolving.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC LEVELER P:

A highly efficient dyeing assistant specific for filament nylon dyeing with acid colors.

Specifications:

pH (5% solution): 6.8

Appearance: Amber liquid

Solubility: Excellent - all proportions

Properties:

1. Excellent solubility and stability
2. Level dyeings achieved
3. Barre problems eliminated

Dyeing Application - Jig:

As a general rule, the jig roll of nylon is given 1 to 2 ends through a solution of CNC LEVELER P and acid or alkali to prepare the goods for the addition of dye and the start into a subsequent dye cycle.

CNC LUBRICANT:

A lubricant and chafe mark inhibitor for nylon and polyester.

Specifications:

Chemical nature: protective colloid

Appearance: clear liquid

Solubility: excellent at all concentrations

pH: 7 (5.0% solution)

Density: 9.0 lbs. per gallon

Application:

A concentration of 2.0 - 4.0% CNC LUBRICANT can be used depending upon the size of the load and the type of goods being processed.

CNC OPTIBRITE D LIQUID:

Specifications:

Appearance: Light brown liquid

Density: 9.5 lbs. per gallon

Chemical nature: Anionic

CNC OPTIBRITE D LIQUID is an anionic compound stable to peroxides and hydrosulfite.

CNC OPTIBRITE D LIQUID increases the whiteness of white fabrics.

CNC OPTIBRITE D LIQUID is a laundry aid. Cottons, linens, and nylon are given an added boost in whiteness when CNC OPTIBRITE D LIQUID is added to soaps, detergents, starches and softening agents.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC OPTIWITE L:**

An optical white for lycra, nylon, acetate and wool.

Appearance:

pH: 6 to 8

Appearance: Clear

Color: Bluish Liquid

Solubility: Soluble in all proportions in water

Application:

CNC OPTIWITE L is a special optical white developed for use on lycra, nylon, acetate, and wool or blends of fibers.

CNC PADDING EMULSION AWK:

CNC PADDING EMULSION AWK is suggested for cotton and polyester/cotton blends. The product has excellent running properties and produces excellent color fastness when properly used. CNC PADDING EMULSION AWK has good compatibility with most finishing compounds.

Specifications:

Chemical nature: Non-ionic emulsion containing melamine formaldehyde with cross linking film forming and emulsifying agents.

pH: 8.5

Application:

Goods to be processed should be clean and slightly on the acid side to insure good bonding of the pigments with the resin. This insures good wash fastness.

CNC PAD BINDER PO-63:

Pad binder for pigment colors

Properties:

CNC PAD BINDER PO-63 is used to increase wash fastness on cotton and polyester/cotton fabrics. This product produces a very soft hand and has excellent running properties.

Specifications:

Chemical nature: anionic carboxylated styrene butadiene latex

pH: 8.5-9.0+-0.1

Active Matter: 28-30%

Appearance: white emulsion

Application:

CNC PAD BINDER PO-63 can be applied with or without catalyst.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC PAL 100:

CNC PAL 100 is a biodegradable non-ionic surface active agent which possesses high detergency, wetting and emulsifying properties.

Outstanding Properties:

1. CNC PAL 100 is extremely stable to bath contamination.
2. CNC PAL 100 is fully biodegradeable.
3. CNC PAL 100 is an excellent emulsifier for Xylene and Naphtha scours.
4. CNC PAL 100 may be run in conjunction with enzymes to promote even wetting with no adverse effect on the desizing agent.
5. CNC PAL 100 can be run in conjunction with alkaline or acid builders where heavy-duty scouring is a must.

Specifications:

Chemical nature: Biodegradable, non-ionic surfactant

Appearance: Semi-viscous, clear liquid

pH: 7.5

Application:

The concentration of CNC PAL 100 to use will vary from 0.5% to 20.0% depending upon the end use of the product.

CNC PAL 500:

An outstanding leveling and scouring surfactant

Specifications:

Ionic nature: nonionic

Chemical nature: ethylene oxide condensate

pH: 6.5

Appearance: amber liquid

Outstanding Properties:

1. Excellent leveling on direct, acid, vat and sulphur dyes.
2. Good dispersing agent.
3. Fast wetting times.
4. Compatible in peroxide and hypochlorite bleach bath.
5. Anti-precipitant for one-bath dyeing.

Application:

Concentrations to be used will vary from 0.25% to 3.0% depending upon the type of dyes being used and the fabric being processed.

CNC PAL 500 is a proven antiprecipitant for one-bath dyeing of blended yarns and fabrics. It is excellent for stabilization and prevention of dyestuff inter-action between cationic and anionic dyestuffs.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC PAL 1000:**

CNC PAL 1000 is a specially developed leveling and scouring agent for acid dyes on nylon. It is particularly effective in the continuous dyeing of nylon carpet.

Specifications:

Appearance: amber liquid

Ionic nature: amphoteric

pH: 6.5-7.0

Solubility: freely miscible in hot water to any proportion

Concentrations of 1.0 - 2.0% CNC PAL 1000 (owf) promote exhaust and rapid level distribution of the dyes.

CNC PAL AN:

CNC PAL AN is an anionic surface active agent with excellent detergency and wetting properties. It is recommended in all phases of textile scouring and washing operations. It is particularly useful in those applications where relatively high amounts of alkali are used in the bath.

Properties:

CNC PAL AN is a modified fatty acid amine condensate which is readily soluble in hot or cold water. It has high emulsifying, dispersing, and wetting properties; and it is stable in the presence of large quantities of alkali. CNC PAL AN is effective in concentrations as high as twelve ounces per gallon of soda ash. This property makes it particularly adaptable for neutralizing and fulling in the same bath after carbonizing and in any other textile applications where alkali stability is an important factor.

Specifications:

Chemical nature: Anionic fatty acid amine condensate

Appearance: Light amber viscous liquid

pH-1% solution: 9.5-10

Application:

CNC PAL AN is recommended in continuous boiloff of rayon and cotton. It can be used in jig boiloff, beck boiloff, and for the continuous boiloff of piece goods.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC Product ST:

CNC Product ST is an anionic surface active agent which possesses excellent wetting and scouring properties. CNC Product ST is recommended as a print wash in cases where high concentrations of residual color and print paste are to be removed from cotton, rayon or synthetic fibers.

Advantages:

1. Excellent stability
2. Good suspending properties
3. Not affected by high concentrations of gum
4. Produces softer prints
5. Reduces crocking and bleeding

Application:

0.5% to 1.5% CNC Product ST can be used alone or in conjunction with alkalis and sequestering agents. Scouring temperatures will vary depending upon the fiber being scoured and the relative fastness of the dyestuff employed.

CNC RETARDER P:

A retarder-leveler for acrylic fibers

Specifications:

Appearance: Amber liquid
Chemical Nature: Modified quaternary compound
Odor: Low
Solubility: Excellent
Foaming: Low

CNC RETARDER P should be run in conjunction with CNC LEVELER-25 to promote level dyeing from atmospheric temperatures (160F) to high temperature pressure (225F).

Dye Formula: Light Shades:

2% CNC RETARDER P
5% Glauber Salt
1% Acetic Acid
2% CNC LEVELER LF-25

Dye Formula: Dark Shades:

0.5% CNC RETARDER P
5% Glauber Salt
1% Acetic Acid
0.5% CNC LEVELER LF-25

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC SOL UE:**

CNC SOL UE is a highly concentrated product and contains aliphatic and aromatic solvents, terpenes, low titer soaps and non-ionic bio-degradable detergents.

It is effective for the removal of greige mill oil, dirt, oilstains, waxes, graphite, etc. in any scouring process where a combination of detergent and solvent action is necessary. The use of this product allows the processor to work with detergents and solvents in the water phase without fire hazards.

CNC SOL UE is an amber colored liquid which dissolves easily in hot or cold water. It is unique in that it contains soaps, solvents, non-ionic detergents in a blend which attacks dirt, grease, wax, grime, etc. of any type.

Specifications:

Chemical nature: Scientific blend of solvents, non-ionic
and anionic detergents

Appearance: Clear, amber colored liquid

Application:

CNC SOL UE is merely dissolved into a scouring bath at 100F to 170F.

CNC SOL XN:

CNC SOL XN is a combination of high powered solvents and emulsifiers for the removal of waxes, greases, oils and greige-mill dirt from cotton, rayon and blends.

Properties:

1. Forms a very stable emulsion when added to water.
2. Is free rinsing.
3. Possesses excellent detergency, wetting and emulsifying properties.

Specifications:

Active matter: 100%

Chemical nature: Solvent surfactant blend

pH: 8.0-8.5

Appearance: Clear, free-flowing liquid

Application:

CNC SOL XN is normally used in conjunction with alkaline builders and non-ionic detergents for the scouring of fabrics of all weight when grease and oil is a problem. A concentration of 1% to 5% of the product based on scouring volume should be sufficient to cover almost all scouring situations. Normally, a scouring temperature not exceeding 175F is recommended. This product does not in any way present a fire hazard when being run on open width equipment, burlington units, dyebecks or jigs.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):

CNC SPANSCOUR EFS:

CNC SPANSCOUR EFS is an anionic surfactant designed as the complete detergent for the scouring of Spandex containing materials.

Specifications:

Appearance: Amber liquid
pH: 7.0-8.0
Solubility: Excellent
Chemical nature: Anionic

Advantages:

1. Excellent emulsification properties
2. Better initial whites on scoured fabrics
3. Free rinsing
4. Extremely stable to bath contamination
5. CNC SPANSCOUR EFS can be combined with alkaline builders when heavy-duty scouring is needed.
6. Excellent booster for SOL BD

Application:

The amounts of CNC SPANSCOUR EFS to be used will depend upon the quantities of graphite, dirt and oils on the fabric.

CNC SUPERKLEEN C:

CNC SUPERKLEEN C is a polymer dispersion which imparts durable hydrophilic and soil release properties to 100% polyester.

Specifications:

Chemical nature: hydrophilic co-polymer
Appearance: tan emulsion
pH: 7+-0.5
Ionic nature: slightly cationic

Advantages:

1. Can be padded or exhausted.
2. Durable to washing and dry cleaning.
3. Does not yellow.
4. Excellent dye bath lubricant.
5. Excellent soil release properties on 100% polyester.
6. Does not contribute to fiber flammability.
7. Promotes water absorption.

Application-Padding:

5.0% (owb) CNC SUPERKLEEN C is added directly to the pad bath.

Application-Dyebath:

CNC SUPERKLEEN C can be applied on becks, beams, jets or package dye machines.

CNC CHEMICAL CORP.: Dyeing & Bleaching Assistants(Continued):**CNC TEXTI TD:**

CNC TEXTI TD is a safe replacement for sodium hydrosulfite for reduction clearing, stripping dyes and equipment cleaning. The advantages over sodium hydrosulfite are that it is necessary to use only 1/5 to 1/7 the amount of CNC TEXTI TD and it is also safer to use and has less odor.

Specifications:

Purity: 98.5% Min.

Appearance: White Crystals

Odor: Almost Odorless

Decomposition Point: 260.6-262.4F (127-128C)

5-Day B.O.D. Rating: 440

C.O.D. Rating: 850

CNC Thickener 30:

An acid type thickener for latex systems

CNC Thickener 30 will rapidly convert to a flowable viscous solution when diluted and neutralized or alkalinized.

CNC Thickener 30 can be used "in situ" to thicken latex systems. The actual time for the incorporation of CNC Thickener 30 into these systems is short due to the rapid solvation of the emulsion particles. A pH of 8-9 is considered optimum in order to obtain maximum viscosity.

CNC Thickener 30 is also used in thickening print pastes either as the primary thickener or to adjust the viscosity of the paste at the printing machine. When CNC Thickener 30 is added to a system that is already alkaline, it should be diluted 2 to 1 with water prior to addition to the paste to avoid formation of lumps.

Thickeners can be prepared by neutralization of CNC Thickener 30. 1% - 5% solutions can be made by adding ammonia or fixed alkali with adequate stirring. The thickeners can be added to a latex system to adjust viscosity and to filter dispersion to prevent settling.

Specifications:

pH: 2.5-3.5

Viscosity @ 25C: 50-100 cps

Appearance: white liquid

CNC CHEMICAL CORP.: Flame Retardants:

CNC PYROBAN 1500:

CNC PYROBAN 1500 is a durable fire retardant for 100% polyester industrial fabrics.

Advantages:

1. Excellent durability
2. CNC PYROBAN 1500 can be exhausted on jigs, dyebecks and pressure beam or jet machines.
3. Low order of toxicity
4. Compatible with dyestuffs and chemicals associated with polyester dyeing.

Specifications:

Appearance: White paste
Chemical Nature: Emulsified, chlorinated compound
Solubility: Disperses in water
pH: 6+-0.5
Ionic Nature: Nonionic

Application:

12.0% CNC PYROBAN 1500 (owg) can be applied.

CNC PYROBAN 1500-M:

CNC PYROBAN 1500 is a durable fire retardant for 100% polyester industrial fabrics.

Advantages:

1. Excellent durability
2. CNC PYROBAN 1500 can be exhausted on jigs, dyebecks and pressure beam or jet machines.
3. Low order of toxicity
4. Compatible with dyestuffs and chemicals associated with polyester dyeing.

Specifications:

Appearance: White paste
Chemical nature: Emulsified, chlorinated compound
Solubility: Disperses in water
pH: 6+-0.5
Ionic Nature: Nonionic

Application:

12.0% CNC PYROBAN 1500 (owg) can be applied.

CNC CHEMICAL CORP.: Flame Retardants(Continued):**CNC PYROBAN FR-100:**

A durable fire retardant and dyeing assistant for 100% polyester fiber.

Specifications:

Appearance: White paste
Dispersibility: Excellent in water
pH: 6+- .5

CNC PYROBAN HS:

CNC PYROBAN HS is a modified brominated compound developed for nylon and blends of nylon and wool upholstery fabrics.

Properties:

1. Excellent trouble-free running properties.
2. Little or no change of hand.
3. Minimal color change.
4. Many auxiliary finishing agents may be incorporated in the CNC PYROBAN HS bath but compatibility should be checked before using.
5. Can be applied to non-wovens by incorporating it with the acrylic or latex binder.

Specifications:

Appearance: Clear colorless liquid
pH: 5.2
Activity: 52%
Specific gravity: 1.29

Application:

A solution of 15% to 30% of CNC PYROBAN HS applied to the cloth will usually give satisfactory fire retardancy.

CNC PYROBAN HSB:

CNC PYROBAN HSB is a very effective flame retardant for acrylic, polyester, rayon, acetate blends.

Specifications:

Appearance: Amber liquid
Ionic Nature: Anionic
Chemical Nature: Brominated compound
pH: 7.0
Specific Gravity: 1.288

Application:

CNC PYROBAN HSB is simply added to water at concentrations ranging from 15.0% to 40.0% depending upon the method of application and the blends of fabrics being processed. The product does not have to be cured.

CNC CHEMICAL CORP.: Flame Retardants(Continued):

PYROBAN K Special:

Liquid Flame Retardant

Properties:

PYROBAN K Special represents an aqueous high temperature stable flame retardant. It is miscible with water in any concentration and can be applied to cloth etc., by spraying, dipping or any other means available at the plant. Thorough penetration is important for good results.

Advantages:

Unlike other flame proofing materials, PYROBAN K Special is compatible with several auxiliaries used in the plant.

Application:

Depending on method of application and pickup 10-25% PYROBAN K Special is sufficient to produce excellent flame protection.

Specifications:

Appearance: Clear liquid

Specific gravity: 1.252

pH: 5.7

Lbs/Gal: 10.5

PYROBAN ND & CNC PYROBAN ND-40 **:

PYROBAN ND is a modified resinous fire retardant for nylon which imparts a wash-fast, soft to medium finish on the goods. It is odorless.

** CNC PYROBAN ND-40 is double the strength of ND so, use only 1/2 as much.

Outstanding Properties:

1. No shade change
2. Soft, pleasing hand
3. Excellent running properties
4. Compatible with fluorochemicals
5. Durable to repeated launderings

Specifications:

Appearance: Clear, colorless, odorless water-liquid

pH: 8.3-8.6

Stability: Stable - 2 months

Specific gravity @ 25C: 1.11 - 1.12

Application:

PYROBAN ND can be applied from a pad bath at room temperature. Usually 15% to 20% (OWB) is sufficient to produce an excellent fire retardant finish on nylon. Ammonium sulfate is the catalyst that must be used with PYROBAN ND. Use 4% ammonium sulfate based on the total amount of PYROBAN ND being used. The goods should be dried and cured following regular resin curing procedures.

CNC CHEMICAL CORP.: Flame Retardants(Continued):**CNC PYROBAN SF:**

CNC PYROBAN SF represents a very effective flame retardant for acetate and acetate/rayon blends. The product is also used for nylon and acrylic fabrics.

Properties:

CNC PYROBAN SF is a liquid material that is readily soluble in water at all concentrations and is stable indefinitely. It is very compatible with other flame retardants, ammonium sulfate, etc., when combinations are desired. CNC PYROBAN SF is not hygroscopic.

Specifications:

Chemical nature: Ammonium bromide

Appearance: Clear liquid

pH: 7.0-7.5

Application:

For best results, CNC PYROBAN SF should be applied on a pad at percentages from 20% to 40% by volume.

CNC PYROBAN V:

A fire retardant for home furnishings

Specifications:

Chemical nature: Organic salt

Appearance: Hazy, thin liquid

pH: 5 - 6

Solubility: In any proportion in water

Advantages:

1. imparts a very soft hand
2. will not crystallize
3. resistant to repeated dry cleaning

Application:

In general, a concentration of 20% - 40% (owb) CNC PYROBAN V is required to fire retard synthetic fabrics. Rate of pick-up, pad pressure, frame/dryer speed all play an important part in the determination of the actual concentration to be run.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes:

AQUAFILM & AQUAFILM FC:

Fluorochemical Stain Repellent and Dry Soil Resistant Finish for Fabrics: Aqueous Application

AQUAFILM is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellence together with dry soil resistance to all fibers including cotton, rayon, wool, nylon, acrylics, polyester and is especially recommended for upholstery fabrics, drapery, slipcovers and other woven materials where dry-soil resistance is of importance. When treated with AQUAFILM these fabrics will exhibit AATCC oil repellency ratings of 80 or higher and excellent soiling resistance, AQUAFILM is thus designed to allow for minimum maintenance of upholstery and other home furnishing fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. The desirable properties imparted to the fabric by AQUAFILM will thus exhibit an appreciably longer life under consumer use conditions. AQUAFILM is a one component system which is cationic. Generally, it may be used with any non-ionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: Clear, amber liquid
Ionic type: Cationic
Specific Gravity 77F: 1.01 g/ml
Density 77F: 8.38 lbs./gal.

Advantages:

Effective on a wide range of cotton, rayon, nylon polyester and wool fabrics and fabric blends.

Imparts excellent dry-soil resistance to treated fabrics.

Repels oil and water based stains.

Durable to solvent and water based cleansers.

Applicable with conventional spray or padding equipment.

Formulates easily in cold water.

Compatible with many resins and extenders including those used in wash and wear and durable press finishes.

No significant change in hand or mark-off characteristics.

Non-yellowing and no changes in shade of dyed fabrics.

Application:

1. AQUAFILM is applied in the final finishing operation, following steps such as desizing, boiling-out, bleaching, mercerizing, dyeing or printing.
2. AQUAFILM may be applied to cotton, rayon, nylon, polyester, acrylics, and wool and blends thereof.
3. Textiles should be as free as practical from processing materials before treating with AQUAFILM.
4. From 1.0 to 2.0% of AQUAFILM on the weight of fabric is generally enough to impart dry-soil resistant/soil repellent properties.
5. AQUAFILM is compatible with many chemicals used in resin finishing.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

CNC AQUAFILM 14:

A Fluorochemical Textile Finish

CNC AQUAFILM 14 is an aqueous cationic fluorochemical finish designed to impart oil and water repellency together with dry soil resistance to all fibers such as cotton, rayon, wool, nylon, acrylics and polyester. CNC AQUAFILM 14 is useful for the treatment of upholstery fabrics, drapery, slipcovers and other materials where dry soil resistance is of importance. It is especially recommended for the treatment of flocked fabrics and velvets where a very soft hand is required in addition to the above properties. Fabrics treated with CNC AQUAFILM 14 will exhibit AATCC oil repellency ratings of 5 to 6, water spray ratings of 70 to 80, and excellent dry soiling resistance. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. CNC AQUAFILM 14 may be applied alone or in combination with resin systems as recommended.

Physical Properties:

Appearance: Clear, amber liquid

Ionic Character: Cationic

Solvent Content: 70% (water 46%, methyl ethyl ketone 43%,
acetic acid 11%)

Density: 1.01 g/ml at 25C

8.42 lbs. per gallon

Application:

1. CNC AQUAFILM 14 is applied in the final finishing operation, following steps such as desizing, boiling-out, bleaching, mercerizing, dyeing or printing.
2. Textiles should be free from processing materials before treating with CNC AQUAFILM 14.
3. From 0.5% to 1.0% of CNC AQUAFILM 14 (OWF) is generally enough to impart durable oil/water repellent-dry soil resistant properties.
4. Excellent results may be obtained by the application of CNC AQUAFILM 14 either alone or in combination with generally accepted finishing aids such as permanent press resins and softeners.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

AQUAFILM FC Conc.:

Fluorochemical Stain Repellent and Dry Soil Resistant Finish for Fabrics: Aqueous Application

AQUAFILM FC Conc. is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellence together with dry soil resistance to all fibers including cotton, rayon, wool, nylon, acrylics, polyester and is especially recommended for upholstery fabrics, drapery, slipcovers and other woven materials where dry-soil resistance is of importance. When treated with AQUAFILM FC Conc., these fabrics will exhibit AATCC oil repellency ratings of 6 to 7, water spray ratings of 80 or higher and excellent dry soiling resistance. AQUAFILM FC Conc. is thus designed to allow for minimum maintenance of upholstery and other home furnishing fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. The desirable properties imparted to the fabric by AQUAFILM FC Conc. will thus exhibit an appreciably longer life under consumer use conditions. AQUAFILM FC Conc. is a one component system which is cationic. Generally, it may be used with any non-ionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: White emulsion
Ionic Type: Cationic
Specific Gravity 77F: 1.01 g/ml
Density 77F: 8.38 lbs. per gallon

Advantages:

Effective on a wide range of cotton, rayon, nylon polyester and wool fabrics and fabric blends.
Imparts excellent dry-soil resistance to treated fabrics.
Repels oil and water based stains.
Durable to solvent and water based cleansers.
Applicable with conventional spray or padding equipment.
Formulates easily in cold water.
Compatible with many resins and extenders including those used in wash and wear and durable press finishes.
No significant change in hand or mark-off characteristics.
Non-yellowing and no changes in shade of dyed fabrics.

Application:

1. AQUAFILM FC Conc. is applied in the final finishing operation, following steps such as desizing, boiling-out.
2. AQUAFILM FC Conc. may be applied to cotton, rayon, nylon, polyester, acrylics, and wool and blends thereof.
3. Textiles should be as free as practical from processing materials before treating with AQUAFILM FC Conc.
4. From 1.0 to 2.0% of AQUAFILM FC Conc. on the weight of the fabric is generally enough to impart durable dry-soil resistant/soil repellent properties.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**AQUAFILM FC Extra:**

Fluorochemical Stain Repellent and Dry Soil Resistant Finish
for Fabrics: Aqueous Application

AQUAFILM FC Extra is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellence together with dry soil resistance to all fibers including cotton, rayon, wool, nylon, acrylics, polyester and is especially recommended for upholstery fabrics, drapery, slipcovers and other woven materials where dry-soil resistance is of importance. When treated with AQUAFILM FC Extra, these fabrics will exhibit AATCC oil repellency ratings of 6 to 7, water spray ratings of 80 or higher and excellent dry soiling resistance. AQUAFILM FC is thus designed to allow for minimum maintenance of upholstery and other home furnishing fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. The desirable properties imparted to the fabric by AQUAFILM FC Extra will thus exhibit an appreciably longer life under consumer use conditions. AQUAFILM FC Extra is a one component system which is cationic. Generally, it may be used with any non-ionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: White emulsion
Ionic Type: Cationic
Specific Gravity 77F: 1.01 g/ml
Density 77F: 8.38 lbs. per gallon

Advantages:

Effective on a wide range of cotton, rayon, nylon polyester and wool fabrics and fabric blends.
Imparts excellent dry-soil resistance to treated fabrics.
Repels oil and water based stains.
Durable to solvent and water based cleansers.
Applicable with conventional spray or padding equipment.
Formulates easily in cold water.
Compatible with many resins and extenders including those used in wash and wear and durable press finishes.
No significant change in hand or mark-off characteristics.
Non-yellowing and no changes in shade of dyed fabrics.

Application:

1. AQUAFILM FC Extra is applied in the final finishing operation, following steps such as desizing, boiling-out.
2. AQUAFILM FC Extra may be applied to cotton, rayon, nylon, polyester, acrylics, and wool and blends thereof.
3. Textiles should be as free as practical from processing materials before treating with AQUAFILM FC Extra.
4. From 1.0 to 2.0% of AQUAFILM FC Extra on the weight of fabric is generally enough to impart durable dry-soil resistant/soil repellent properties.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

CNC AQUAFILM 999:

CNC AQUAFILM 999 is a mildly cationic fluorochemical oil and water repellent developed specifically for the outerwear market.

Advantages:

1. Results in excellent oil and water repellency on a wide range of fibers, especially 100% nylon outerwear.
2. Easily diluted in water.
3. No yellowing of whites.
4. No shade change on dyed fabrics.
5. Excellent compatibility with thermosetting resin systems.

Specifications:

Appearance: yellow emulsion

Ionic nature: cationic

pH: 2 - 4

Application:

The amounts of CNC AQUAFILM 999 to be used will depend on this method of application, for example, pad, foaming, exhaust and the base fabric being treated.

CNC AQUAFILM N:

CNC AQUAFILM N is a durable water and oil repellent designed for both outerwear and upholstery fabrics.

Specifications:

Appearance: White Emulsion

pH: 6.0

Chemical Nature: Aqueous fluorochemical

Advantages:

1. Durable to washing and dry cleaning.
2. Produces very soft hand.
3. Applicable to cotton, rayon, polyester and nylon
4. Can be used to extend the more expensive fluorochemicals

Application:

The CNC AQUAFILM N is simply added to the pad bath at room temperature with mild agitation. Resins and other fluorochemicals can be added at the same time followed by the addition of a pre-diluted catalyst.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**AQUAFILM NLCN:**

AQUAFILM NLCN is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellence together with dry soil resistance to all fibers including cotton, rayon, wool, nylon, acrylics, polyester and is especially recommended for upholstery fabrics, drapery, slipcovers and other woven materials where dry-soil resistance is of importance. When treated with AQUAFILM NLCN these fabrics will exhibit AATCC oil repellency ratings of 6 to 7, water spray ratings of 80 or higher and excellent dry soiling resistance, AQUAFILM NLCN is thus designed to allow for minimum maintenance of upholstery and other home furnishing fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. The desirable properties imparted to the fabric by AQUAFILM NLCN will thus exhibit an appreciably longer life under consumer use conditions. AQUAFILM NLCN is non-ionic and generally may be used with most coating or finish additives; however, laboratory testing for suitability is suggested.

Physical Properties:

Appearance: yellow liquid

pH: 2 - 3

Ionic Nature: non-ionic

Chemical Nature: reactive fluorochemical

Advantages:

1. Produces excellent oil and water repellency
2. Soft smooth hand
3. Product in solution compatible over a wide pH range because it can be adjusted to pH 7.

Application:

1. AQUAFILM NLCN is applied in the final finishing operation, following steps such as desizing, boiling-out, bleaching, mercerizing, dyeing or printing.
2. AQUAFILM NLCN may be applied to cotton, rayon, nylon, polyester, acrylics, and wool and blends thereof.
3. Textiles should be as free as practical from processing materials before treating with AQUAFILM NLCN.
4. From 1.0 to 2.0% of AQUAFILM NLCN on the weight of fabric is generally enough to impart durable dry-soil resistant/soil repellent properties.
5. AQUAFILM NLCN is compatible with many chemicals used in resin finishing.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

CNC AQUAFILM PA:

Fluorochemical Stain Repellent & Water Repellent Finish for Outerwear.

CNC AQUAFILM PA is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellent finishes on outerwear fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. CNC AQUAFILM PA is a one component system which is cationic. Generally, it may be used with any nonionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: White emulsion
Ionic nature: Cationic
pH (5% solution): 4.2

Application:

The CNC AQUAFILM PA is simply diluted 1:1 with water before use.

CNC AQUAFILM PAW:

Fluorochemical Stain Repellent & Water Repellent Finish for Outerwear

CNC AQUAFILM PAW is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellent finishes on outerwear fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. CNC AQUAFILM PAW is a one component system which is cationic. Generally, it may be used with any nonionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: White emulsion
Ionic nature: Cationic
pH (5% solution): 4.2

Application:

Adjust pH to 4.5 - 5 with Acetic Acid. The CNC AQUAFILM PAW is simply diluted 1:1 with water before use. It is fully compatible with glyoxal crosslinkers and zinc nitrate type accelerators. After dilution, the CNC AQUAFILM PAW is added to the finishing bath after the resin, and before the catalyst.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**CNC AQUAFILM RW:**

Fluorochemical Stain Repellent & Water Repellent Finish for Outerwear

CNC AQUAFILM RW is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellent finishes on outerwear fabrics. Application of this fluorochemical is especially easy because it is completely miscible with cold or warm water. CNC AQUAFILM RW is a one component system which is cationic. Generally, it may be used with any nonionic or cationic additive. Anionic and basic materials have limited compatibility.

Physical Properties:

Appearance: Clear amber liquid
Ionic nature: Cationic
pH (5% solution): 4.2

Application:

The CNC AQUAFILM RW is simply diluted 1:1 with water before use.

CNC AQUAFILM T:

CNC AQUAFILM T is a mildly cationic fluorochemical oil and water repellent developed specifically for the outerwear market.

Advantages:

1. Results in excellent oil and water repellency on a wide range of fibers, especially 100% nylon outerwear.
2. Easily diluted in water.
3. No yellowing of whites.
4. No shade change on dyed fabrics.
5. Excellent compatibility with thermosetting resin systems.

Specifications:

Appearance: yellow emulsion
Ionic nature: cationic
pH: 2 - 4

Application:

The amounts of CNC AQUAFILM T to be used will depend on this method of application, for example, pad, foaming, exhaust and the base fabric being treated.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

AQUATHANE Series:

AQUATHANES aqueous co-polymer fluorochemical polyurethane finishes have many value added application end uses for natural, synthetic and blended constructions.

Their primary property of extremely tough film formation give them extreme resistance to degradation while maintaining basic substrate tactile character.

Applications:

Pad Finish:

1. Water & oil repellency: While their films are tough they are elastic enough to withstand calendering with no loss in these properties.
2. Downproofing: On both spun and 100% filament goods, the AQUATHANES have demonstrated their ability as process aids in lowering air permeability while reducing calendering nips at elevated temperatures.
3. Abrasion and pilling resistance: The AQUATHANES impart little hand even at some of the elevated concentrations needed for providing resistance to abrasion and pilling. Burst is also little affected - in some instances on very open constructions, burst and tear are improved.
4. Non-ravel bonding: In this application the AQUATHANES have been applied to a wide variety of fabric from single ply taffeta to CORDURA without detracting from the hand of the goods. This method saves one whole step; coating, drying and post repelling.
5. Crock resistance: The AQUATHANES cannot be cure-alls, but have demonstrated vs. other generic chemical finishes, a close to universal improvement in crock resistance on most fibers and blends.

Foam Finishing:

1. Flock: AQUATHANE foams in the proper ratios are excellent receivers of flock natural and synthetic, their durability lends to further wet process as may be necessary.
2. Laminating: Foamed onto substrate AQUATHANES with selected compatible adhesives form combined products with excellent drape and hand with the properties above mentioned for flocked goods.
3. Non-woven: The AQUATHANES inherently have excellent water and oil resistance in technical wet and dry laid application. They show further process aid in their release properties from surface contact in web formation and drying.
4. Coatings: The AQUATHANES are available in specific viscosities for all coating methods.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**ARIDRY FC Extra:**

Fluorochemical Stain Repellent and Dry Soil Resistant Finish
for Fabrics: Aqueous Application

ARIDRY FC Extra is a new aqueous fluorochemical finish designed to impart lasting high oil and water repellence together with dry soil resistance to all fibers including cotton, rayon, wool, nylon, acrylics, polyester and is especially recommended for upholstery fabrics, drapery, slipcovers and other woven materials where dry-soil resistance is of importance.

Physical Properties:

Appearance: White emulsion
Ionic type: Cationic
Specific gravity 77F: 1.01 g/ml
Density 77F: 8.38 lbs. per gallon

Advantages:

Effective on a wide range of cotton, rayon, nylon polyester and wool fabrics and fabric blends.
Imparts excellent dry-soil resistance to treated fabrics.
Repels oil and water based stains.
Durable to solvent and water based cleansers.
Applicable with conventional spray or padding equipment.
Formulates easily in cold water.
Compatible with many resins and extenders including those used in wash and wear and durable press finishes.
No significant change in hand or mark-off characteristics.
Non-yellowing and no changes in shade of dyed fabrics.

CNC FLUOROTEX:

CNC FLUOROTEX is a mildly cationic fluorochemical oil and water repellent developed specifically for the outerwear market.

Advantages:

1. Results in excellent oil and water repellency on a wide range of fibers, especially 100% nylon outerwear.
2. Easily diluted in water.
3. No yellowing of whites.
4. No shade change on dyed fabrics.
5. Excellent compatibility with thermosetting resin systems.

Specifications:

Appearance: yellow emulsion
Ionic nature: cationic
pH: 2 - 4

Application:

The amounts of CNC FLUOROTEX to be used will depend on the method of application, for example; pad, foaming, exhaust and the base fabric being treated.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

CNC REZCAT #2:

CNC REZCAT #2 is a highly reactive polyfunctional aziridine product designed for use as a crosslinker in polymeric systems containing carboxyl or hydroxyl functionalities. Incorporation of CNC REZCAT #2 into functional polymeric systems promotes crosslinking at lower energy levels, improves water and solvent resistance, and increases adhesion to many substrates.

Product Properties & Application:

CNC REZCAT #2 is a highly reactive crosslinker. It will crosslink any system containing hydroxyl or carboxyl functions. Crosslinking takes place at drying temperatures. Because of its very high reactivity, CNC REZCAT #2 can be used most efficiently in the fixing of binders used in printing of pigment colors, coatings and similar operations.

Coating Application:

CNC REZCAT #2 can be incorporated in coatings operations where binders with carboxyl or hydroxyl functionality are being used.

Adhesive Application:

Addition of 0.5 - 2.0% (active) CNC REZCAT #2 to carboxyl functional vinyl acetate based adhesive formulations significantly increases adhesion to plastic films.

CNC REZCAT #3:

CNC REZCAT #3 is a highly reactive polyfunctional aziridine product designed for use as a crosslinker in polymeric systems containing carboxyl or hydroxyl functionalities. Incorporation of CNC REZCAT #3 into functional polymeric systems promotes crosslinking at lower energy levels, improves water and solvent resistance, and increases adhesion to many substrates.

Product Properties & Application:

CNC REZCAT #3 is a highly reactive crosslinker. It will crosslink any system containing hydroxyl or carboxyl functions. Crosslinking takes place at drying temperatures. Because of its very high reactivity, CNC REZCAT #3 can be used most efficiently in the fixing of binders used in printing of pigment colors, coatings and similar operations.

Coating Application:

CNC REZCAT #3 can be incorporated in coatings operations where binders with carboxyl or hydroxyl functionality are being used.

Adhesive Application:

Addition of 0.5 - 2.0% (active) CNC REZCAT #3 to carboxyl functional vinyl acetate based adhesive formulations significantly increases adhesion to plastic films such as polyethylene, polypropylene, and mylar.

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**REZTHANE 1980:**

REZTHANE 1980 is an aqueous polyurethane emulsion designed for pad, reverse roll or engraved roll application.

It forms a very tough, elastic, abrasion resistant finish in low levels of application. If other finishes are to be combined in same pad, careful selection and pre-screening is necessary as these are highly anionic.

The film is tack-free, aliphatic and light stable.

Specifications:

Appearance: white emulsion

Solids: 47+-1

Viscosity: 2,000 cps

pH: 8.5

Clean up: hot water or 1,1,3 Trichloroethane

Cure: 1 - 2 minutes @ 350F.

Dilution: H2O @ room temperature

REZTHANE 1980A & 1980B:

REZTHANES 1980A & 1980B, aqueous polyurethane base or single coat, is designed for knife over roll or floating knife application on goods normally coated with solvent coatings where either recovery or protected environment is in place.

REZTHANES 1980A & 1980B are durable to washing and dry cleaning. These coatings accept pigmenting very readily if opacity or color is desired.

Specifications:**1980A:**

Appearance: white emulsion

Solids: 40% +- 1%

Viscosity: 36,000 cps

pH: 8.5

Clean up: H2O (hot)

1,1,3 Trichlorethane

Cure: 350F. 1-2 minutes

1980B:

Appearance: white emulsion

Solids: 40% +- 1%

Viscosity: 60,000 cps

pH: 8.5

Clean up: H2O (hot)

1,1,3 Trichlorethane

Cure: 350F. 1-2 minutes

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

REZTHANE 1980S:

REZTHANE 1980 is an aqueous polyurethane emulsion designed for pad, reverse roll or engraved roll application.

It forms a very tough, elastic, abrasion resistant finish in low levels of application. If other finishes are to be combined in same pad, careful selection and pre-screening is necessary as these are highly anionic.

The film is tack-free, aliphatic and light shade.

Specifications:

Appearance: white emulsion

Solids: 47+-1

Viscosity: 2,000 cps

pH: 8.5

Clean up: hot water or 1,1,3 Trichloroethane

Cure: 1 - 2 minutes @ 350F.

Dilution: H2O at room temperature

REZTHANE 1980S & WS1980S:

REZTHANE 1980 is an aqueous polyurethane emulsion designed for pad, reverse roll or engraved roll application.

It forms a very tough, elastic, abrasion resistant finish in low levels of application. If other finishes are to be combined in same pad, careful selection and pre-screening is necessary as these are highly anionic.

The film is tack-free, aliphatic and light stable.

Specifications:

Appearance: white emulsion

Solids: 47+-1

Viscosity: 2,000 cps

pH: 8.5

Clean up: hot water or 1,1,3 Trichloroethane

Cure: 1 - 2 minutes @ 350F.

Dilution: H2O @ room temperature

REZTHANE 1980SM:

REZTHANE 1980 is an aqueous polyurethane emulsion designed for pad, reverse roll or engraved roll application.

It forms a very tough, elastic, abrasion resistant finish in low levels of application. If other finishes are to be combined in same pad, careful selection and pre-screening is necessary as these are highly anionic.

The film is tack-free, aliphatic and light stable.

Specifications:

Appearance: white emulsion

Solids: 47+-1

Viscosity: 2,000 cps

pH: 8.5

Clean up: hot water or 1,1,3 Trichloroethane

Cure: 1-2 minutes @ 350F.

Dilution: H2O @ room temperature

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):**REZTHANE 1980SMX:**

REZTHANE 1980 is an aqueous polyurethane emulsion designed for pad, reverse roll or engraved roll application.

It forms a very tough, elastic, abrasion resistant finish in low levels of application. If other finishes are to be combined in same pad, careful selection and pre-screening is necessary as these are highly anionic.

The film is tack-free, aliphatic and light stable.

Specifications:

Appearance: white emulsion

Solids: 47+-1

Viscosity: 2,000 cps

pH: 8.5

Clean up: hot water or 1,1,3 Trichloroethane

Cure: 1 - 2 minutes @ 350F.

Dilution: H2O @ room temperature

REZTHANE 2980A & 2980B:

Note: CNC REZTHANE 2980-C & D same only drier hand.

Pack cloth and CORDURA coatings

REZTHANES 2980A & 2980B, aqueous polyurethane base or single coat, is designed for knife over roll or floating knife application on goods normally coated with solvent coatings where either recovery or protected environment is in place.

REZTHANES 2980A & 2980B are extremely soft and have excellent cold flex properties and are durable to washing and dry cleaning.

The coating accepts pigmenting very readily with universal grinds in glycol when opacity or color is required.

Where temperature of normal curing is not available they may be catalyzed with REZCAT #3 @ 1%. When handled in this way a cure of no more than 250-275F. is all that is required when coating is moisture free.

Specifications:**2980A:**

Appearance: white emulsion

Solids: 42%+-1%

Viscosity: 36,000 cps

pH: 8.5

Clean up: H2O (hot)/1,1,3 Trichlorethane

Diluent: H2O

Cure: 350F. 1-2 minutes

2980B:

Appearance: white emulsion

Solids: 42%+-1%

Viscosity: 60,000 cps

pH: 8.5

Clean up: H2O/1,1,3 Trichlorethane

Diluent: H2O

Cure: 350F. 1-2 minutes

CNC CHEMICAL CORP.: Fluorochemicals & Polyurethanes(Continued):

CNC REZTHANE 3540:

Pack Cloth & CORDURA coating

CNC REZTHANE 3540, aqueous polyurethane base or single coat, is designed for knife over roll or floating knife application on goods normally coated with solvent coatings where either recovery or protected environment is in place. It will give a high lustre, tack-free coating for Stork.

CNC REZTHANE 3540 is extremely soft and has excellent cold flex properties and is durable to washing and dry cleaning.

This coating accepts pigmenting very readily with universal grinds in glycol when opacity or color is required.

Where temperature of normal curing is not available, it may be catalyzed with CNC REZCAT #3 @ 1%. When handled in this way, a cure of no more than 250-275F is all that is required when coating is moisture-free.

Specifications:

Appearance: White emulsion

Solids: 40+-1%

Viscosity: 16,500 cps

Diluent: Water

pH: 8-9

Chemical: Polyurethane latex

Nature: Anionic

REZTHANE U-PF Series:

REZTHANE U-PF products are aqueous polyurethane finishes designed for pad application for a wide range of upgrading end uses. They all have excellent properties in resistance to degradation in washing and dry cleaning.

Applications:

Printing:

1. As a post finish for low crock and abrasion resistance.
2. In color for low crock permanence-they may be extended with acrylics.
3. In color for screen printing, CNC recommends that CNC ANTI-STICK 300-S be added in order to keep screens clean and to prevent excessive clogging.

Pad Finish:

1. Downproofing: On both spun and 100% filament goods, the REZTHANES have demonstrated their ability as process aids.
2. Abrasion and pilling resistance: The REZTHANES impart little hand even at some of the elevated concentrations needed for providing resistance to abrasion and pilling.
3. Non-ravel bonding: In this application the REZTHANES have been applied to a wide variety of fabric from single ply taffeta to 400d, pack cloth without detracting from the hand of the goods.
4. Crock resistance: The REZTHANES cannot be cure-alls, but have demonstrated vs. other generic chemical finishes, a close to universal improvement in crock resistance on most fibers and blends.

CNC CHEMICAL CORP.: Printing Auxiliaries:**CNC ALL-AQUEOUS CLEAR CONC. 7711:**

This all-aqueous clear concentrate is adaptable to roller and screen print equipment and can be run as an all water or an oil in water emulsion.

Advantages:

1. Excellent fastness to dry-cleaning, crocking and washing.
2. Print paste does not thin out when CLEAR CONC. 7711 is added.
3. Good running qualities.

CNC ALL AQUEOUS CLEAR BP:

An all aqueous liquid thickener for pigment printing systems.

Properties:

Chemical Nature: acrylic polymer
Appearance: pale yellow pourable dispersion
pH: 9.0
Ionic nature: anionic

Advantages:

1. Pourable liquid
2. Disperses readily in water
3. Excellent running properties
4. Excellent color yield

Application:

The precise quantity of CNC ALL AQUEOUS CLEAR BP required will depend on the job to be done.

In general the application level will be in the range of 1.5% - 3.0%.

CNC ALL AQUEOUS CLEAR BP may used either as the thickener for a stock paste or added directly to a print formulation. The product disperses readily in water to produce a smooth paste.

CNC ANTISTICK 300-S:

CNC ANTISTICK 300-S is an especially efficient lubricant and compatibilizer for pigment print paste.

Specifications:

Chemical nature: modified silicone
Appearance: off-white liquid
Ionic nature: non-ionic
pH: 8

Application:

When added to print paste, CNC ANTISTICK 300-S acts as an excellent leveler and penetrant along with forming a smooth paste which prevents screen clogging in most instances. It also eliminates the gritty appearance that might appear on the finished print.

CNC CHEMICAL CORP.: Printing Auxiliaries(Continued):

CNC LINT-GARD:

An extremely soft cross-linking acrylic polymer

Advantages:

1. Produces soft, non-tacky film
2. Greatly reduces clogging on screen and roller printing
3. Does not interfere with print strike
4. Non-yellowing

Specifications:

Chemical nature: acrylic polymer

Appearance: thin, white emulsion

Film hardness: soft

Application:

Pad: 1.5%-3.0% CNC LINT-GARD (owb) is simply padded on to the goods and frame dried prior to printing.

Exhaust: 4% in last tank when continuous boil-off, and frame.

CNC POLYTERGE PAT:

CNC POLYTERGE PAT is a surface active agent specifically manufactured to remove and suspend residual disperse dyes on polyester.

Specifications:

Appearance: Brown liquid

Solubility: Excellent at any concentration

pH: 7.5

Advantages:

1. Improved crock fastness
2. Minimum ground staining on prints
3. No bleed-back of dyes during scouring yarn-dyed polyester

Application:

As a general rule, a 3.0% solution of POLYTERGE PAT should be used in beck, jig or beam scouring of 135F.

CNC CHEMICAL CORP.: Printing Auxiliaries(Continued):**CNC PRODUCT PW and CNC FIX CONC.:**

A versatile combination using a print wash and a dye fixative for nylon printed with acid dyes.

Specifications:**PRODUCT PW:**

Appearance: Amber liquid
Solubility: Excellent
pH: 9.0 - 9.2

FIX CONC.:

Appearance: Clear, viscous liquid
Solubility: Excellent
pH: 4.6

Advantages:

1. Results in brighter and sharper shades
2. Prevents redeposition of acid dyes on white grounds
3. Excellent money value vs. competitive products

CNC THICKENER 60:

CNC THICKENER 60 is an acid-containing, cross-linked acrylic emulsion copolymer. When the emulsion is diluted with water and neutralized with a base, each emulsion particle swells greatly. The emulsion then becomes highly viscous.

Properties:

pH (when packed): Approximately 3.5
Viscosity: 10 cps
Solution viscosity:
 5%: 25,000 cps
 1%: 3,000 cps
Appearance: Milky liquid
Charge: Anionic

CNC CHEMICAL CORP.: Special Purpose Products:

Ammonium Oleate 15%:

Specifications:

Appearance: slightly viscous, pale yellow liquid
pH (as is): 9.5-10.5
Viscosity @ 25C: 65-100 cps
Dry down solids: 13.5+- .2%
Specific gravity: .966
Odor: strong odor of ammonia

CNC Antifoam 1-A:

CNC Antifoam 1-A is specially designed to suppress and prevent foam formation in aqueous systems. When applied to dyebath or scour before the operation is initiated, foam may be suppressed initially. During operations when foam has already formed, CNC Antifoam 1-A may be added directly to the aqueous bath or sprayed onto the surface onto the surface of the bath.

Outstanding Properties:

CNC Antifoam 1-A is supplied in dispersible fluid form which minimizes the danger of spot formation on fabric passing through the bath. Low concentrations of CNC Antifoam 1-A minimizes contamination of the finishing bath. CNC Antifoam 1-A is an efficient foam inhibitor of textile wet processing applications.

Specifications:

Chemical nature: Emulsified defoaming agent
Appearance: Fluid white emulsion
pH 5% solution: 7.2 at 25C.
Weight per gallon: 8.3 lbs.

Applications:

In ordinary applications, under plant conditions, one or two ounces per hundred gallons of process mix, dyebath, or scour will be sufficient to eliminate foam.

Additional Suggested Uses:

CNC Antifoam 1-A may be employed in any type of laundry operation wherein excessive foaming is a problem. The use of one to five ounces CNC Antifoam 1-A per 100 gallons of water will reduce foam which is particularly injurious when laundering equipment is employed for dyeing purposes.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC Antifoam 1-AP:**

CNC Antifoam 1-AP is specially designed to suppress and prevent foam formation in aqueous systems. When applied to dyebath or scour before the operation is initiated, foam may be suppressed initially. During operations when foam has already formed, CNC Antifoam 1-AP may be added directly to the aqueous bath or sprayed onto the surface of the bath.

Outstanding Properties:

CNC Antifoam 1-AP is supplied in dispersible fluid form which minimizes the danger of spot formation on fabric passing through the bath. Low concentrations of CNC Antifoam 1-AP minimizes contamination of the finishing bath. CNC Antifoam 1-AP is an efficient foam inhibitor of textile wet processing applications.

Specifications:

Chemical nature: Emulsified defoaming agent
Appearance: Fluid white emulsion
pH 5% solution: 7.2 at 25C
Weight per gallon: 8.3 lbs.

Applications:

In ordinary applications, under plant conditions, one to two ounces per hundred gallons of process mix, dyebath, or scour will be sufficient to eliminate foam.

Additional Suggested Uses:

CNC Antifoam 1-AP may be employed in any type of laundry operation wherein excessive foaming is a problem.

CNC Antifoam 100:

CNC Antifoam 100 is a viscous emulsion and contains 10% silicone. It is easily dilutable with water and as little as 5% or 10% dilutions remain stable for many hours. These dilutions have immediate defoaming action.

CNC Antifoam 100 is economical and results in savings.

CNC Antifoam 100 is used in a wide range of industrial uses such as for paper, textile, water-phase paints, etc.

Specifications:

Type: Viscous silicone emulsion
Color: White
pH: 4-5
Active silicone: 10%
System: Nonionic
Diluent: Water

Application:

Most users make a 5% or 10% dilution with water prior to using. This product is often effective in as little as 35 ppm.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC Antifoam SS:

This product is a compounded silicone fluid defoamer; it contains 100% active matter. It is thin, translucent and syrupy. Suitable diluents are aliphatic, aromatic and chlorinated solvents. In itself, it is not water soluble but may be used as a base to make very effective silicone emulsion defoamers to be used in the water phase.

In itself, it is used in solvent phase systems to prevent foam, especially where vacuum is used. Effective concentrations of one to 50 ppm are used.

Properties:

Active matter: 100%

Type: Compounded silicone fluid

Color: Translucent

Odor: Negligible

Diluents: Aliphatic, aromatic and chlorinated solvents.

CNC Antifoam SS is used in the compounding of silicone emulsions as defoamers to be used in the water phase.

CNC Antistat #2:

CNC Antistat #2 is a quaternary ammonium bromide. It is a light colored amber solution. It may be used on cotton, wool, viscose and bemberg. Textiles treated with CNC Antistat #2 are resistant to mildew and decomposition by bacteria. Pathogenic organism are inhibited by the bacteriostatic qualities imparted to fabrics.

CNC Antistat #2 is non-volatile and does not contain any phenol, iodine or mercurials. It is non-corrosive to metal, rubber and most equipment.

Bacteriological Properties:

The minimum phenol co-efficient as determined by FDA technique is as follows.

Staphylococcus aureus (#209): 21.0

Eberthella typhosa (Hopkins): 8.2

CNC Antistat #2 is also an economical agent to prevent slime and control algae in water baths, refrigerating equipment, air conditioning systems, swimming pools, etc.

Treatment of Textiles:

Textiles may be rendered bacteriostatic by adding 5 ounces of CNC Antistat #2 per 100 pounds of fabric in final rinse.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC Antistat #4:**

CNC Antistat #4 is a metallic salt derivative designed to produce mildew and rot resistance on textiles. It is non-volatile and does not contain phenol iodine or mercurials.

Properties:

CNC Antistat #4 is compatible with finishing agents commonly used in textile finishing and is effective in water repellent formulations. The product is non-corrosive to plant equipment and no special handling is required.

Application:

As little as 2 - 3% in the finishing bath will produce effective mildew and rot resistance to textiles.

Specifications:

Appearance: clear liquid

pH: 4.0+-0.1

Chemical nature: metallic salt

Specific gravity: 1.162

CNC Antistat C New:

Durable antistatic compound

CNC Antistat C New represents a durable antistatic product which is particularly effective on typical problem fibers such as nylon, orlon and dacron. Very small amounts applied to these materials will attach so tenaciously that repeated laundering and dry cleaning will not remove the finish. CNC Antistat C New is substantive in nature and, therefore, has a strong affinity for these fibers.

Specifications:

Solubility: Dispersible in hot water

Appearance: Soft, creamy ivory colored paste

pH (5% solution): 5.0+-0.1

Density: 8.0 lbs. per gallon

Application:

CNC recommends 3% (by volume) dispersed in hot water 150F - 160F which will produce excellent antistatic properties. CNC Antistat C New is miscible with many other textile auxiliaries that are cationic or non-ionic and can be applied to the fabric with or without these products. However, a more durable effect will be realized if CNC Antistat C New is applied as a top finish.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC Deionizer N:

CNC Deionizer N is a chemical compound which inactivates iron, calcium and magnesium ions in textile processing solutions. It increases the stability of soap baths and prevents the formation of metallic soaps. It prevents the reaction of metals with dyestuffs and therefore eliminates dulling of shades due to metallic ions present in dye solutions. A small quantity of CNC Deionizer N is merely dissolved into the bath before detergent or dyestuff is added. CNC Deionizer N is effective over a wide temperature and pH range and may be used in any textile process where trace metals are a possible source of trouble. Listed are a few of the many uses for CNC Deionizer N:

1. To prevent dulling or change in shades of dyestuffs due to metal contamination.
2. Helps to reduce dullness, streaking, crocking and will somewhat improve color yield.
3. Improves the lathering properties of some synthetic detergents and increases their efficiency.
4. Increases the efficiency of soaps in hard water and prevents the formation of metallic soaps.
5. Improves whites in bleaching and inactivates many ions that might cause trouble.
6. Prevents oxidation of sulphonated oils and fatty acids.
7. Prevents print pastes from setting up and livering.

Properties:

CNC Deionizer N as supplied is a water-thin liquid which will mix in any proportion with water.

Specifications:

Chemical Nature: Sodium salt of ethylene diamine tetra acetic acid.

Appearance: Clear, slightly yellow solution

pH 1% Solution: Very alkaline - at 12

General Recommendations:

The amount of CNC Deionizer N in any given application will depend directly on the condition of the water.

Kierboiling

Cotton Bleaching

Mercerizing

Processing of rayon and synthetics

Dyeing

Printing

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC DESIZE EXTRA:**

CNC DESIZE EXTRA is a high temperature enzyme preparation of exceptional stability to high temperatures. It has the combined qualities of both the amylolytic and proteolytic type enzymes and is used for the economical high temperature desizing of all fabrics sized with starches and gelatins. It has no effect on the natural and synthetic fibers and does not discolor whites or harm delicate shades. This enzyme is the head generating type enzyme and, therefore, is more stable to high temperatures than the common type enzymes being employed in textile desizing today. It is the most stable enzyme at temperatures of 160F. to 180F. and is, therefore, considered most adaptable to the new rapid pad steam method of desizing.

Properties:

CNC DESIZE EXTRA consists of a standardized mixture of heat generating amylolytic and proteolytic enzymes of bacterial origin.

Specifications:

Chemical nature: Mixture of amylolytic and proteolytic enzymes.

Appearance: Brown liquid with a pungent odor
pH (1% solution): 6.9

Application:

CNC DESIZE EXTRA can be used at temperatures varying from 130 to 180F.

CNC FACEGARD A:

CNC FACEGARD A is a solubilizing agent for acrylic fibres, but under the proper concentrations and conditions, it acts as a swelling agent making the fibre more receptive to disperse and cationic colors and giving better yield, levelness and fixation.

Properties:

FACEGARD A can be incorporated in the pad steam dyeing operation of acrylic tow, top and piece goods or copolymers that contain acrylics.

FACEGARD A can be incorporated in print colors for printing acrylic piece goods and carpeting or copolymers that contain acrylics.

FACEGARD A can be applied to the nap of acrylic pile blankets. When properly applied, it fuses the pile into permanent position.

FACEGARD A can be applied to non-woven acrylic blankets as a permanent binder.

FACEGARD A, when used in the dyeing operation, will result in additional shrinkage and additional bulk to the acrylic fibre.

FACEGARD A works well on all types of acrylic fibres.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC Finish 81:

CNC Finish 81 is a synthetic hand builder and weighter used to produce unique finishes on cotton, rayon and polyester blends. In addition to giving weight to the finished fabrics, CNC Finish 81 imparts a full smooth hand with little tendency to mark-off.

Properties:

1. Is fully compatible with cationic and anionic systems.
2. Does not retard the activity of catalysts when run with thermosetting resins.
3. Will not mark-off unless a surplus amount is deposited on the surface of treated fabrics.
4. Does not affect tensile strength.
5. Upgrades crease and abrasion resistance of treated fabrics.

Application:

CNC Finish 81 can be used at almost any desired concentration, alone, or in conjunction with thermosetting resins and synthetic softeners. The amount used will depend on the degree of fullness needed.

CNC Finish 81 should be prediluted and added to the finishing mix after resin, but before catalyst has been added.

CNC FLEX 492:

Reactive acrylic emulsion

Physical Properties:

Total Solids, %: 46-47
Weight per Gallon: 8.95 lbs.
Viscosity @ 25C: 25-200 cps
Particle Charge: Negative
pH @25C: 5.0-5.5
Odor: Mild, characteristic
Mechanical Stability: Excellent

Film Properties:

Appearance: Clear
Fadeometer: Excellent
Heat Aging: Excellent

Outstanding Features:

CNC FLEX 492 is a self-crosslinking acrylic emulsion whose air dried films are clear, hard and water resistant. CNC FLEX 492 is of particular interest in textile applications because of the very firm hand it imparts to cellulosic or synthetic fabrics.

CNC FLEX 492 can be applied by saturation to increase stiffness of nonwovens or can be sprayed onto high loft nonwovens to minimize tack and maintain loft.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC FLEX R:**

CNC FLEX R is a self-crosslinking polymer used to impart hand and bulk to treated fabrics.

Specifications:

Appearance: White emulsion
pH: 4.0-4.5
Viscosity: 200-400 cps
Density: 8.8 lbs. per gallon

Advantages:

1. Non-yellowing
2. Excellent durability on elasticized fabric
3. Blends well with thermosetting resins
4. Stability to borax - excellent

Application:

CNC FLEX R can be added to water at any concentration necessary to provide the required hand to a fabric. CNC FLEX R can also be thickened using the conventional thickeners for back coating purposes. The film can be softened by incorporating a synthetic softener or plasticizer into the thickened product.

CNC FOAM ASSIST AA:

CNC FOAM ASSIST AA is a high solids foaming agent for foam finishing.

Specifications:

Appearance: clear, viscous liquid
pH: 6.5-7.0
Ionic nature: non-ionic
Chemistry: non-ionic ethoxylate

Advantages:

1. Excellent wetting
2. Produces stable, uniform foam
3. No effect on shade
4. Allows even penetration into the fiber

Application:

A starting formulation of 2.0% - 4.0% (owb) should be used. The type of foaming and application equipment will dictate the correct concentration.

Certain finishing agents can minimize the amounts of foam being generated, therefore higher concentrations of CNC FOAM ASSIST AA might be required.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC FOAM ASSIST AA-100:

CNC FOAM ASSIST AA-100 is a high solids foaming agent for foam finishing.

Specifications:

Appearance: clear, viscous liquid
pH: 6.5-7.0
Ionic nature: non-ionic
Chemistry: non-ionic ethoxylate

Advantages:

1. Excellent wetting
2. Produces stable, uniform foam
3. No effect on shade
4. Allows even penetration into the fiber

Application:

A starting formulation of 1 - 3% (owb) should be used. The type of foaming and application equipment will dictate the correct concentration.

CNC LIGHT DULLER CA:

CNC LIGHT DULLER CA is a synthetic cationic finish for delustering synthetics and silk. This product should be used on light to medium shades.

Properties:

CNC LIGHT DULLER CA is a cationic dispersion of titanium dioxide. In most all cases, the product will not cause mark-off if properly applied. The nature of the product is to lie on the surface of the cloth; consequently, if a fine dispersion of TiO₂ is not used, chalking or mark-off will occur.

Specifications:

Chemical nature: Cationic TiO₂ dispersion
Appearance: Free-flowing white liquid
pH: 4.0+-0.2

Application:

CNC LIGHT DULLER CA can be applied in the conventional manner on a quotch or padding mangle. It should be pre-diluted and filtered into the finishing bath. A 5% solution of CNC LIGHT DULLER CA based on the total bath should give excellent delustering effects.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**POLY-COUPLER, IMP. RFB-X353:**

The first textile resin co-polymer utilizing the multi-functional groups of a hydantoin-acetylenic derivative to achieve resin fixation without altering the basic configuration of the resin itself. Originally developed to eliminate afterwash requirements for chlorine resistant resins possessing inherent characteristics which result in the generation of fish odors. RFB-X353 is active without the addition of special catalysts and does not effect standard cure temperatures previously established for a resin or resin combination. It is added directly to the catalyzed resin bath, before padding, and standard finishing procedure is followed throughout. Wash and neutralization may be dispensed with when proper amounts are incorporated into the resin system

Properties:

RFB-X353 is 75% active, in an alcohol-water solvent system. It is slightly basic and possesses a decided sweet odor. It is a solution.

Applications: As Pad-Bath Additive:

In most cases 1% RFB-X353 offers maximum protection to a resin finish.

CNC POLYQUEST 80:

A powerful sequestering agent for iron.

Specifications:

Appearance: Clear liquid

Chemical nature: Diethylene triamine penta acetic acid
pentasodium salt.

pH: About 12

General Information:

CNC POLYQUEST 80 is a chemical compound which inactivates iron in peroxide bleach baths. In general, it complexes alkaline earth as well as heavy metals. It chelates these metals more strongly than EDTA Salts and is recommended for the inactivation of trace catalytic metals.

Peroxide Bleaching:

CNC POLYQUEST 80 is not readily attacked by peroxide bleaches. It inactivates the metallic ions and prevents deoxidation of the oxidizing agent. This lengthens the life of the bleach baths. 0.1% to 0.25% CNC POLYQUEST 80 will add greatly to the efficiency of the bleach.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC PVA NS:

A polyvinyl acetate emulsion

Specifications:

pH (5% solution): 4 - 5

Chemical nature: Non-ionic polyvinyl acetate emulsion

Particle size: 0.5 to 2 microns

Appearance: White, free flowing liquid

Properties and Uses:

CNC PVA NS is polyvinyl acetate emulsion which is prepared especially for use on textiles where maximum whiteness initially and upon storage is a must.

CNC PVA NS produces maximum stiffness and body to almost all fibers because of the continuous film which is formed upon drying.

Application:

CNC PVA NS is dispersed in water at temperatures from 80F to 160F. Usually the polyvinyl acetate emulsion is added to the finishing bath first, but actually may be added after resins and softeners are in the mix.

Experience has shown that you may use up to 50% solutions of CNC PVA NS without encountering any difficulties.

CNC PVA NX:

A polyvinyl acetate emulsion

Specifications:

pH (5% solution): 4 to 5

Chemical nature: Non-ionic polyvinyl acetate emulsion

Particle size: 0.5 to 2 microns

Appearance: White, free-flowing liquid

Properties and Uses:

CNC PVA NX is polyvinyl acetate emulsion which is prepared especially for use on textiles where maximum whiteness initially and upon storage is a must.

CNC PVA NX produces maximum stiffness and body to almost all fibers because of the continuous film which is formed upon drying.

CNC PVA NX is borax stable.

Application:

CNC PVA NX is dispersed in water at temperatures from 80F. to 160F. Usually the polyvinyl acetate emulsion is added to the finishing bath first, but actually may be added after resins and softeners are in the mix.

Experience has shown that you may use up to 50% solutions of CNC PVA NX without encountering any difficulties.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC QUICK SET SIL:**

CNC QUICK SET SIL is used with CNC ARIDRY SN fabric finishes to facilitate curing. Use one part of catalyst to eight (8) parts of CNC ARIDRY SN as received. The catalyst must be diluted with water and added to the diluted silicone emulsion for best bath stability.

Weigh out one part CNC QUICK SET SIL for each eight (8) parts of CNC ARIDRY SN. Dilute two or three times its original volume with water and stir into the bath.

The bath should be prepared to obtain a pick up in the range of 1.0 to 1.5% silicone solids based on the dry weight of the fabric. CNC ARIDRY SN contains 20% solids. A 5 to 7% solution of CNC ARIDRY SN will usually be satisfactory.

The fabric should be padded and cured in conventional drying equipment.

CNC RIBBON FINISH CN & RIBBON FINISH #1:

CNC RIBBON FINISH CN is a pure synthetic resin which is soluble in water. It imparts a firm and a full hand to practically all types of fabrics. It is compatible with other resins and most finishing compounds in slightly alkaline or neutral solutions.

Outstanding Properties:

CNC RIBBON FINISH CN may be applied at low temperature minimizing color changes. CNC RIBBON FINISH CN produces a continuous, transparent, non-dusting film. It will not oxidize or decompose on a fabric. CNC RIBBON FINISH CN will not dull the luster of ribbon, acetate or rayon.

Specifications:

Appearance: Clear, almost water-white liquid

pH: 8.0+-1.0

Solubility: Clearly soluble in water

Use and Method of Application:

CNC RIBBON FINISH CN is intended primarily for finishing and sizing of fabrics to give firmness and full-bodied hand. Its main use is a satin or ribbon finish. Normal concentrations are from 5 to 15% of CNC RIBBON FINISH CN in solution depending on the fabric and type of finish wanted. The normal pad and frame operations are to be followed with drying temperatures of as low as 200F being possible.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):

CNC SPANSCOUR GR:

A unique combination of a super scour and inhibitor for Spandex containing fabrics which have a tendency to yellow due to atmospheric conditions.

Specifications:

Appearance: Amber liquid

Solubility: Dispersible at all concentrations

pH: 7.5

Concentrations to be Used:

Dye Beck: 15:1 liquor ratio

Jet Vessel: 10:1 liquor ratio (3 tube)

Beam: 6:1 liquor ratio

20% CNC SPANSCOUR GR based on weight of Spandex

Application:

Note: If heat setting is required, this should be accomplished before CNC SPANSCOUR GR is applied.

CNC STIK-GUM Extra Conc.:

A highly concentrated all-purpose screen print gum.

Specifications:

Appearance: Yellowish liquid

pH: 5.5-6.0

Chemical nature: Modified, water-soluble synthetic polymer

Advantages:

1. CNC STIK-GUM Extra Conc. can be used to glue all fibers.
2. CNC STIK-GUM Extra Conc. does not discolor.
3. CNC STIK-GUM Extra Conc. does not cause shade changes on all classes of dyes including fiber reactives.
4. CNC STIK-GUM Extra Conc. is very economical since it is so highly concentrated.

Application:

CNC STIK-GUM Extra Conc. is used at 100% concentrations from the drum. It can be applied from a trough and furnished to the blanket or belt by means of a roll. Excess amounts of the gum are removed by a doctor blade. After the goods are printed, residual gum is easily removed by means of a standard after-wash.

CNC CHEMICAL CORP.: Special Purpose Products(Continued):**CNC SUPERKLEEN:**

This product was designed to give the textile trade the first trouble free soil-release in one bath. Thousands of yards of 65/35 polyester-cotton and 50/50 polyester-cotton have been processed with SUPERKLEEN as one of the key ingredients with excellent results. Naturally, it is very important that every chemical used in the finishing formula be of the quality that will not detract from soil-release properties.

Specifications:

Appearance: Milky-white emulsion
pH: 2.9
Solubility: Forms emulsion at any concentration
Chemical nature: Reactive acrylic

Properties:

1. CNC SUPERKLEEN improves drape and appearance of treated fabrics.
2. CNC SUPERKLEEN imparts added abrasion resistance to cotton, rayon and polyester fibers.
3. CNC SUPERKLEEN is perfectly compatible with all types of thermosetting resin systems.
4. Soil-release properties of treated fabrics maintain excellence even after repeated launderings.

Application:

CNC SUPERKLEEN is applied in conjunction with the regular crease resistant or durable-press finishes in a one-bath system.

SUPERKLEEN EXTENDER:

SUPERKLEEN EXTENDER is an essential part of the SUPERKLEEN PLUS Finish. This material when run in conjunction with SUPERKLEEN and QUIKSET, upgrades the soil release properties of treated fabrics.

Specifications:

Appearance: Clear free-flowing liquid
pH: 5% solution - 6.0
Solubility: Excellent at 70F.
Chemical nature: Blended reactant

Application:

Five per cent of SUPERKLEEN EXTENDER based on the total volume is readily dissolved in water at 70F.

CNC CHEMICAL CORP.: Synthetic Softeners:

CNC BASE 200:

Outline for Use:

15.00%	CNC Base 200
1.50%	Glacial Acetic Acid
83.49%	Water
0.01%	Metri Perfume (if desired, for odor only)

1. Heat CNC BASE 200 until it melts (80C)
2. Charge Acetic and stir well.
3. Charge water at 80C and stir well. Add perfume.
4. While cooling to 30-35C, stir well.
5. Draw off at 30-35C.

CNC BASE 200:

Outline for Use:

20.00%	CNC BASE 200
2.00%	Glacial Acetic Acid
75.99%	Water
0.01%	Metric Perfume (if desired, for odor only)

1. Heat CNC BASE 200 until it melts (80C)
2. Charge Acetic and stir well.
3. Charge water at 80C and stir well. Add perfume.
4. While cooling to 30-35C., stir well.
5. Draw off at 30-35C.

CNC BASE 500-A:

CNC BASE 500-A is a 100% active material and is supplied as a waxy solid.

Cationic and anionic softeners may be easily prepared from CNC BASE 500-A.

A 35% active cationic softener may be prepared as follows:

Melt 35 parts of CNC BASE 500-A (temperature--80C) and add 2.75 parts of acetic acid 100%. Stir for 15 minutes and add 62.5 parts of water at 40C slowly. Stir until smooth and cool to 35-40C and draw off. A soft smooth product should result which is easily dilutable for application. Diethylene glycol may be added to cationic softeners of this type if desired.

Anionic softeners of the substantive type may be prepared as follows:

Add potassium hydroxide 45% to the formulation listed above to a pH of 9 to 10. The potassium hydroxide should be added prior to the cooling step and the softener stirred until smooth.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC BASE 600:**

CNC BASE 600 is a cationic softener concentrate for simple dilution into an extremely stable cationic softener dispersion.

Physical Properties:

pH (10% solution): 4-5
Total activity: 90%
Physical form: Off-white wax

CNC BASE 900:**Specifications:**

Active Ingredients: 100%
Reaction: Completely nonionic
Form and Color: Off-white, waxy solid
Melting Point: 140F.
Type: Modified long chain ester
pH (of aqueous solution): 7 approximately

Application:

Stocks containing 20-40% of the product range from soft to stiff pastes. Stocks of 10-15% are pourable, pumpable fluids. They are all easily handled and are readily dispersible in warm water.

CNC NAPSOFT FL:

CNC NAPSOFT FL is a non-ionic softener specific for cellulosic fibers which will subsequently be napped. CNC NAPSOFT FL produces a full and lofty nap on cotton and rayon which closely resembles a lush, rich suede.

Outstanding Properties:

1. Non-yellowing on cotton whites.
2. Even penetration possible because wetting agents are included in the product.
3. Improved sewability of finished fabric.
4. Fewer passes necessary on napper.

Specifications:

Appearance: Smooth, off-white paste
Chemical nature: Non-ionic synthetic softener
pH: 9
Density: 8.5 lbs. per gallon

Application:

The amounts of CNC NAPSOFT FL will vary according to pickup, weight of cloth and class of dyestuff used on colors.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC NAPSOFT FL:

NOTE: CNC NAPSOFT FL-15 is the liquid form of this product**

CNC NAPSOFT FL is a non-ionic softener specific for cellulosic fibers which will subsequently be napped. CNC NAPSOFT FL produces a full and lofty nap on cotton and rayon which closely resembles a lush, rich suede.

Outstanding Properties:

1. Non-yellowing on cotton whites.
2. Even penetration possible because wetting agents are included in the product.
3. Improved sewability of finished fabric.
4. Fewer passes necessary on napper.

Specifications:

Appearance: Smooth, off-white paste

** Off-white liquid

Chemical nature: Non-ionic synthetic softener

pH: 9

Density: 8.5 lbs per gallon

CNC SCROOP M-100:

A napping softener and fiber lubricant for springneedle acrylic knits

Specifications:

Chemical nature: Ethoxylated stearate

pH: 9.4

Appearance: Free-flowing, off-white liquid

Advantages:

1. Excellent resistance to yellowing.
2. Soluble at low temperatures.
3. Easy to handle.
4. Prevents the formation of lay bar marks (drying out of fabric at folds).
5. Will not condense in drying/curing oven; consequently, substantial reduction of down-time for cleaning equipment.
6. Good softness and lubricity.
7. Produces good fiber to metal friction.

Application Procedure:

CNC SCROOP M-100 is simply dissolved in water at 100F.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC NAPSOFT M-100:**

A napping softener and fiber lubricant for springneedle acrylic knits

Specifications:

Chemical nature: Ethoxylated stearate

pH: 9.4

Appearance: Free-flowing, off-white liquid

Advantages:

1. Excellent resistance to yellowing.
2. Soluble at low temperatures.
3. Easy to handle.
4. Prevents the formation of lay bar marks (drying out of fabric at folds).
5. Will not condense in drying/curing oven; consequently, substantial reduction of down-time for cleaning equipment.
6. Good softness and lubricity.
7. Produces good fiber to metal friction.

Application Procedure:

CNC NAPSOFT M-100 is simply dissolved in water at 100F.

CNC POLYSOFT 35:

CNC POLYSOFT 35 is a non-ionic synthetic softener which can be used as a softener-lubricant on both pre-cure, post-cure and crease resistant finishes.

Properties:

1. Excellent resistance to yellowing
2. Produces smooth, silky hand on polyester/cotton blends
3. Abrasion resistance upgraded
4. No effect on lightfastness
5. Excellent resistance to atmospheric fading

Specifications:

Chemical nature: non-ionic

Appearance: White, free-flowing emulsion

pH: 9.0

Density: 8.2 lbs. per gallon

Application:

CNC POLYSOFT 35 is used at concentrations ranging from 0.5% to 8.0% depending upon the type cloth being processed and finish required.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC POLYSOFT 40:

CNC POLYSOFT 40 is a non-ionic synthetic softener which can be used as a softener-lubricant on both pre-cure, post-cure and crease resistant finishes.

Properties:

1. Excellent resistance to yellowing.
2. Produces smooth, silky hand on polyester-cotton blends.
3. Abrasion resistance upgraded.
4. No effect on light fastness.
5. Excellent resistance to atmospheric fading.

Specifications:

Chemical nature: Non-ionic emulsion
Appearance: White free-flowing emulsion
pH: 9.0
Density: 8.2 lbs per gallon

Application:

CNC POLYSOFT 40 is used at concentrations ranging from 0.5% to 8.0% depending upon the type cloth processed and finish required.

CNC POLYSOFT PE and PE-40:

CNC POLYSOFT PE is a non-ionic polyethylene emulsion. It is an excellent fiber lubricant and softener and definitely adds drape and increased loft to treated fabrics.

CNC POLYSOFT PE is the product to use in conjunction with thermosetting resins for durable permanent press work.

Properties:

1. Free-flowing emulsion is easily dispersed.
2. No free waxes are added to this product.
3. High resistance to scorch yellowing.
4. Fabric tear strength upgraded.
5. No effect on light fastness.

Specifications:

Chemical nature: Non-ionic polyethylene emulsion
Appearance: White, free-flowing emulsion
pH: 9.0-9.2
Density: 8 lbs. per gallon

Application:

CNC POLYSOFT PE is added to the finishing mix after the resin, but before the catalyst has been added.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC SCROOP B:**

CNC SCROOP is an ethylene oxide condensate which produces an excellent scroop in rayon, nylon acetate and orlon piece goods yarn or stock. This product also is an outstanding antistatic agent and fiber lubricant.

Specifications:

Chemical Nature: Ethylene-oxide condensate

Solubility: Soluble in water above 140F.

Appearance: Cream colored paste.

Application:

In routine applications to stock or skein, 0.25% CNC SCROOP B based on the weight of the material being processed will produce the desired scroop, lubricity and antistatic properties.

CNC SOFT 200 S:

CNC SOFT 200 S is a non-ionic synthetic softener designed to meet the rigid requirements of modern high quality fabric finishes.

Outstanding Properties:

CNC SOFT 200S imparts a soft, silky hand and good surface lubrication which minimizes needle cutting.

CNC SOFT 200S will not discolor whites at elevated temperatures.

CNC SOFT 200S provides excellent lubricity needed for napping and brushing on synthetic fibers.

Specifications:

Appearance: off-white liquid

pH: 7.5

Chemical nature: modified silicone emulsion

Density: 8.2 lbs./gal.

Ionic nature: non-ionic

Application:

CNC SOFT 200 S is preferably applied on a padder as a total finish or in conjunction with resins and hand builders.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC SOFT 300S:

CNC SOFT 300S is a non-ionic synthetic softener designed to meet the rigid requirements of modern high quality fabric finishes.

Outstanding Properties:

CNC SOFT 300S imparts a soft, silky hand and good surface lubrication which minimizes needle cutting.

CNC SOFT 300S will not discolor whites at elevated temperatures.

CNC SOFT 300S provides excellent lubricity needed for napping and brushing on synthetic fibers.

Specifications:

Appearance: Off-white liquid

pH: 8

Chemical nature: modified silicone emulsion

Density: 8.42 lbs/gal

Ionic nature: non-ionic

Application:

CNC SOFT 300S is preferably applied on a padder as a total finish or in conjunction with resins and hand builders.

CNC SOFT C-1:

CNC SOFT C-1 is a cationic, synthetic softener which is recommended in any application where a soft, luxurious hand is required. The product is a good all purpose softener/lubricant, but it can be incorporated into resin mixes to prevent harshness of hand which is quite common in polyester-cotton finishing.

Outstanding Properties:

1. non-yellowing
2. readily soluble in water
3. excellent napping assist for velours and brushed goods
4. improves tear strength of treated fabric

Specifications:

Chemical nature: cationic, synthetic softener

Appearance: free flowing liquid

pH: 4.4+-0.1

Application:

CNC SOFT C-1 should be prediluted before it is added to the finishing bath.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC SOFT C-2:**

CNC SOFT C-2 is a cationic softener and fiber lubricant.

Properties:

CNC SOFT C-2 is a synthetic softener for use on fabrics of all constructions when a soft, smooth, silky hand is desired. It is a fine all-purpose fiber lubricant and softener and is particularly recommended for use in combination with thermosetting resins and cross-linking agent to produce a smooth hand and also to minimize tearing and tensile strength loss and improve resistance to abrasion.

CNC SOFT C-2 provides excellent fiber softness and lubricity and is resistant to scorching and chlorine retention.

Application:

CNC SOFT C-2 can be applied from a pad bath (0.5% - 1.5%) or can be completely exhausted in less than 30 minutes at temperatures 80F - 100F. 0.5-2.0% (owg).

CNC SOFT C-2-U:

CNC SOFT C-2-U is a cationic softener and fiber lubricant.

Properties:

CNC SOFT C-2-U is a synthetic softener for use on fabrics of all constructions where a soft, smooth, silky hand is desired. It is a fine all-purpose fiber lubricant and softener and is particularly recommended for use in combination with thermosetting resins and cross-linking agents to produce a smooth hand and also to minimize tearing and tensile strength loss and improve resistance to abrasion.

Applications:

CNC SOFT C-2-U can be applied from a pad bath (0.5% - 1.5%) or can be completely exhausted in less than 30 minutes at temperatures of 80F - 100F. (0.5-2.0% - owg).

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC SOFT G-1:

A liquid cationic softener

Physical and Chemical Properties:

Appearance: Opalescent liquid

pH: 4.5

Specific gravity 25C: 1.0

Solubility: Readily dispersible in hot or cold water

Outstanding Properties:

CNC Soft G-1 is a substantive cationic softener which imparts a soft, slick hand to synthetic fibers, but particularly for acrylics such as orlon, acrilan, etc. CNC SOFT G-1 can be applied from long or short baths in such equipment as becks, paddle and package machines. CNC SOFT G-1 is cold water soluble and can be added directly to the finish bath.

CNC SOFT GPN:

CNC SOFT GPN is a liquid cationic softener.

Physical Appearance:

Appearance: cream colored liquid

pH (1% solution): 4.5

Specific gravity: 1.01

Lbs./Gal.: 8.4

Solubility: Disperses readily in hot or cold water

Outstanding Properties:

CNC SOFT GPN is a substantive cationic softener which imparts a soft slick hand to synthetic fibers but particularly for acrylics such as orlon, acrilan, etc. CNC SOFT GPN can be applied from long or short baths in such equipment as becks, paddle and package machines. CNC SOFT GPN is cold water soluble and can be added directly to the finish bath.

CNC SOFT IG:

CNC SOFT IG is a cationic, synthetic softener that is used in conjunction with thermosetting resins to produce smoothness on fabrics which normally finish harsh due to surface resins.

Properties:

CNC SOFT IG is a smooth paste which is soluble in warm water. It is used on black, whites and colors without seriously affecting light fastness or scorch yellowing. This softener really becomes as permanent as the resin which it has been applied with.

Specifications:

Chemical nature: Cationic synthetic amide

Appearance: Fluid paste

pH: 4.3

Density: 8.2 lbs. per gal.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC SOFT L:**

A concentrated non-ionic softener

Properties and Uses:

CNC SOFT L is a non-ionic wax emulsion which is quite stable over a wide pH range.

CNC SOFT L is a excellent lubricant and softener for use on elasticized fabrics containing spandex. The material is non-yellowing and does not accelerate atmospheric fading of the spandex fibers.

CNC SOFT L may be used alone or in conjunction with thermoplastic or thermosetting finishes.

Specifications:

pH (5% solution): 7.4+-0.1

Appearance: White liquid

Density: 8.0 lbs. per gallon

Application:

CNC SOFT L can be added to the finishing mix in any proportions.

CNC SOFT PH:

CNC SOFT PH is a non-ionic synthetic softener which can be used as a softener-lubricant on both pre-cure, post-cure and crease resistant finishes.

Properties:

1. Excellent resistance to yellowing.
2. Produces smooth, silky hand on polyester-cotton blends.
3. Abrasion resistance upgraded.
4. No effect on light fastness.

Specifications:

Chemical nature: Non-ionic emulsion

Appearance: White free-flowing emulsion

pH: 9.0

Density: 8.2 lbs. per gallon

Application:

CNC SOFT PH is used at concentrations ranging from 0.5% to 8.0% depending upon the type of cloth being processed and finish required. Many finishing plants will use CNC SOFT PH in areas where high crease resistance and bulk are required.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC SOFT S:

CNC SOFT S is a non-ionic synthetic softener designed for elasticized lace and tricot type constructions.

Properties:

1. Excellent resistance to yellowing
2. No effect on light fastness
3. Excellent resistance to atmospheric fading
4. No mark-off on dark shades

Note:

Do not use on fabrics which require fire retardant labels

Specifications:

Chemical nature: non-ionic silicone emulsion

Appearance: white, free-flowing liquid

pH: 7.5

Density: 8.2 pounds per gallon

Application:

CNC SOFT S is used at concentrations from 0.5% to 3.0% depending on the degree of softness required.

CNC SOFT SL:

Properties:

CNC SOFT SL is a non-ionic glycol derivative which is prepared especially for use on 100% polyester or polyester-cotton blends where maximum softness and whiteness is a must.

CNC SOFT SL can be used alone or in conjunction with thermo-setting or thermoplastic materials.

CNC SOFT SL does not affect light fastness of fabrics treated with direct dyes.

CNC SOFT SL is an excellent softener for use in conjunction with acrylic finishes.

Specifications:

Appearance: Light, yellow, clear liquid

pH: 7.4

Chemical nature: non-ionic, glycol derivative

Density: 8.5 pounds per gallon

Application:

CNC SOFT SL is dispersed in water at any temperature from 80F to 212F. The quantities of CNC SOFT SL required will depend upon the degree of softness desired and also the fabric being processed.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):**CNC SOFT SR:****Properties:**

CNC SOFT SR is a stable compound of a polyglycol mono-oleate base. It is non-ionic with excellent stability and compatibility and has high resistance to scorch yellowing.

CNC SOFT SR has no effect on light fastness.

CNC SOFT SR is a low foamer.

CNC SOFT SR is compatible with hot starch mixes at the boil.

Specifications:

pH 5% solution: 7.0

Active ingredients: 40.0%

Appearance: Amber liquid

Solubility: Soluble in cold water

Density (lbs. per gallon): 8.34

Application and Uses:

CNC SOFT SR is soluble in cold water at any proportions and may be added directly to the finishing mix (resin or starch).

CNC SOFT SR is fully compatible with the range of catalysts (MgCl₂, Zn(NO₃)₂ and amine hydrochloride).

Amounts of CNC SOFT SR to be used will depend on fabric construction and the degree of softening required. 1% to 5% may be needed.

CNC SOFT TD:

CNC SOFT TD is an amphoteric substantive softener which will produce a full, soft hand on most fabrics.

Advantages:

1. Durable to washing and dry cleaning.
2. An outstanding fiber lubricant for nylon and cut nylon flock.
3. Will not discolor whites or cause shade change.
4. SOFT TD is completely substantive.

Specifications:

Appearance: white paste

Chemical nature: amphoteric substantive

pH (5% solution): 9.0+-0.5

Application:

Pad Method: 1% to 2% of CNC SOFT TD based on the total volume of finishing liquor is normally sufficient.

Exhaustion Method: CNC SOFT TD may be exhausted on most fibers, fabrics, etc. in a dyebeck, jig or dolly washer.

Tow and Flock Method (Nylon): CNC SOFT TD should be applied to the nylon tow following continuous dyeing.

CNC CHEMICAL CORP.: Synthetic Softeners(Continued):

CNC SOFT XXX:

CNC SOFT XXX is an amphoteric softener in a liquid form. It is compatible in solutions at a pH as low as 2.0 and as high as 10.0. CNC SOFT XXX produces a full, soft, cationic hand on cotton and synthetics and has been very effective on crushed flocked velvet and pile fabrics. It is also an excellent napping assistant.

Specifications:

Physical form: Pourable liquid
Color: Cream
Solubility: Disperses readily in water
pH - 5% solution: Approximately 5.0

Application:

CNC SOFT XXX is exceptionally versatile as it is compatible with anionic, cationic or nonionic substances. It is compatible with resins, catalysts and optical bleaches; also acrylic resins, polyvinyl acetate emulsions and starches. The product may be applied by padding or exhaust methods.

CNC SOFT XXX has softening and lubricating properties and produces a full, pleasing hand and improves wrinkle recovery. It has high resistance to scorch and aging. It has no adverse effects on dyestuffs.

The amount to use will vary as a rule from 0.5 to 3.0% on the weight of the fabric or 2 - 3% if padded.

CNC SUPERSOFT NI:

CNC SUPERSOFT NI is a liquid synthetic softener designed for plasticized fabrics.

Properties:

1. Excellent resistance to yellowing.
2. No effect on light fastness.
3. Excellent resistance to atmospheric fading.
4. No mark-off on dark shades.

Specifications:

Chemical nature: modified silicone emulsion
Appearance: ivory-colored, pourable liquid
Density: 8.2 lbs. per gallon

Application:

CNC SUPERSOFT NI is used at concentrations from 0.5% to 3.0% depending upon the degree of softness required.

The softener is simply added to the mix and stirred in. No pre-mixing is required for this product.

CNC CHEMICAL CORP.: Thermosetting Resins:**CNC COMPOSITE:**

Self-catalyzed Modified Glyoxal Cross-linker

Specifications:

Appearance: clear off white yellow liquid

pH: 4.9

Solubility: complete

Specific Gravity @ 30C: 1.155

Properties:

CNC COMPOSITE is a modified glyoxal base cross-linking agent containing a latent catalyst, fiber lubricant and softener, wetting agent and formaldehyde cross-linker. It provides a convenient low cost method for producing high quality "Wash and Wear" or "Durable Press" finishes. In spite of the contained catalyst, spontaneous polymerization does not occur and shelf life is excellent.

The composition of CNC COMPOSITE is such that tensile strength, tear strength and abrasion loss are kept at a minimum.

CNC COMPOSITE treated fabrics are highly resistant to chloring bleaching and will not yellow at commonly encountered elevated temperatures.

Application:

CNC COMPOSITE is applied to the fabric by standard pad-dry-cure procedures.

CNC MEL 80-P:

A melamine formaldehyde resin syrup

Specifications:

pH: 9.1-9.5

Appearance: Clear, viscous syrup

Density: 10.3 lbs. per gallon

Solubility: Excellent

Properties and Uses:

CNC MEL 80-P will produce the following effects on treated fabrics:

1. Excellent wash fastness on dacron marquisette fabric
2. Durable glazed chintz and embossing
3. Dimensional stability, especially on spun rayon and AVRIL when run in conjunction with the low polymer thermosetting resins.
4. Extreme resiliency on 100% rayon tie lining fabrics

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):

CNC MEL DF 50:

CNC MEL DF 50 is a modified melamine formaldehyde resin which is used on medium to lightweight polyester/cotton blends to impart both shrinkage control and a crisp resilient hand.

Properties:

CNC MEL DF 50 is a viscous, water clear liquid thermosetting resin which is soluble in water at any concentration. The product is fully compatible with other thermosetting resins, organic and inorganic catalysts, synthetic softeners and also thermoplastic materials.

Specifications:

Appearance: Viscous, water white liquid

Chemical nature: Modified melamine formaldehyde thermosetting resin

pH: 7.0-8.0

Solubility: In water at any proportion

Density: 10.2 lbs. per gallon

Application:

CNC MEL DF 50 can be added to the finishing in any amount depending upon the type of fabrics being processed.

CNC MEL DFC:

CNC MEL DFC is modified melamine formaldehyde resin which is used on medium to lightweight polyester and polyester/cotton blends to impart both shrinkage control and a crisp resilient hand.

Properties:

CNC MEL DFC is a viscous, water clear liquid thermosetting resin which is soluble in water at any concentration. The product is fully compatible with other thermosetting resins, organic and inorganic catalysts, synthetic softeners and other thermoplastic materials.

Specifications:

Appearance: Viscous, water white liquid

Chemical nature: Modified melamine formaldehyde thermosetting resin

pH: 7.0-8.0

Solubility: In water at any proportion

Density: Approx. 10 lbs. per gallon

Application:

CNC MEL DFC can be added to the finishing in any amount depending upon the type of fabrics being processed.

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):**CNC POLYSET 100:**

A stiffening agent for polyester.

Specifications:

Appearance: clear, amber liquid
Lbs. per gal.: approximately 7.3
Solubility of 5% solution: clear
pH: 7.3

CNC REZ 550:

A cyclic reactant resin

Properties:

CNC REZ 550 is a glyoxal, thermosetting resin.
CNC REZ 550 produces excellent crush resistance and shrinkage control on regular CRF or permanent press work.
CNC REZ 550 may be used on conjunction with durable water repellents.

Specifications:

pH: 4.2
Appearance: slightly amber
Solubility: In water in almost any proportions

Application and Uses:

CNC REZ 550 has good solubility in almost any proportions. The concentration used will depend upon the type of cloth being processed and also the degree of crease recovery the customer might desire.

CNC REZ 550 (WG):

A cyclic reactant resin

Properties:

CNC REZ 550 is a glyoxal, thermosetting resin.
CNC REZ 550 produces excellent crush resistance and shrinkage control on regular CRF or permanent press work.
CNC REZ 550 may be used on conjunction with durable water repellents.

Specifications:

pH: 4.2
Appearance: slightly amber
Solubility: In water in any proportions

Application and Uses:

CNC REZ 550 has good solubility in almost any proportions. The concentration used will depend upon the type of cloth being processed and also the degree of crease recovery the customer might desire.

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):

CNC REZ BLEND OS:

Self-catalyzed Modified Glyoxal Composite

Specifications:

Appearance: off-white liquid
pH: 5.0-5.5
Solubility: in water in all proportions
Specific Gravity: 1.192
Lbs. per Gallon: 9.9

Properties:

CNC REZ BLEND OS is a modified glyoxal base cross-linking agent containing a latent catalyst, weighter, synthetic softener and lubricant. It provides a convenient low cost method for producing high quality "Wash & Wear" or "Durable Press" finishes. In spite of the contained catalyst, spontaneous polymerization does not occur and shelf life is excellent.

The composition of CNC REZ BLEND OS is such that tensile strength, tear strength and abrasion loss are kept at a minimum.

CNC REZ BLEND OS treated fabrics are highly resistant to chlorine bleaching and will not yellow at commonly encountered elevated temperatures.

Application:

CNC REZ BLEND OS is applied to the fabric by standard pad-dry-cure procedures.

CNC REZ K:

CNC REZ K is a modified ethylene urea formaldehyde resin which was created to give the finisher a thermosetting resin which possesses all of the outstanding features of cyclic resins as to shrinkage control, crease resistance, hand appeal and also not detract from soil release properties. This resin gives fairly soft hand on all classes of fibres and is exceptionally durable on the polyester/cotton blends.

Properties:

CNC REZ K is free-flowing liquid resin which is readily soluble in water at any temperature and almost any concentration.

CNC REZ K does an excellent job on pre-cure work on polyester/cotton blends where high crease resistance and good muss appearance are essential.

CNC REZ K is fully compatible with other thermosetting resins, thermoplastics, softeners, dye fixatives, optical bleaches and almost all classes of organic and inorganic catalysts.

Specifications:

Chemical nature: Ethylene urea formaldehyde resin
Appearance: Free-flowing thin liquid - clear
Solubility: In all proportions at room temperature

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):**CNC REZ KN:**

A cyclic reactant resin

Properties:

CNC REZ KN is a modified glyoxal, thermosetting resin.

CNC REZ KN produces excellent crush resistance and shrinkage control on regular CRF or permanent press work.

CNC REZ KN may be used in conjunction with durable water repellents.

Specifications:

pH: 4.2

Specific Gravity: 1.134

Appearance: slightly amber

Solubility: in water in any proportions

Application and Uses:

CNC REZ KN has good solubility in almost any proportions.

The concentration used will depend upon the type of cloth being processed and also the degree of crease recovery the customer might desire.

CNC REZ LFR:

Low formaldehyde resin

Specifications:

Appearance: clear liquid

pH: 5.3

Solubility: excellent in cold or warm water

Properties:

CNC REZ LFR is a modified cyclic cross-linking resin. High quality wash and wear and durable press finishes can be produced by pad or foam apparatus. When properly cured, free formaldehyde on fabric is 100-150 ppm.

Application:

Depending on the type of application and pick-up, CNC suggests 10-15% by volume on the pad.

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):

CNC REZ LFR-C:

Self-catalyzed, low formaldehyde resin

Specifications:

Appearance: Clear liquid

pH: 3.2-3.8

Solubility: Excellent in cold or warm water

Specific Gravity @ 30F: 1.155

Properties:

CNC REZ LFR-C is a modified cyclic cross-linking resin containing a latent catalyst. High quality wash and wear and durable press finishes can be produced by pad or foam apparatus. When properly cured, free formaldehyde on fabric is 100-150 ppm.

Application:

Depending on the type of application and pick-up, CNC suggests 10-15% by volume on the pad.

CNC REZ PV:

Self-catalyzed Modified Glyoxal Cross-Linker

Specifications:

Appearance: clear pale yellow liquid

pH: 5.0-5.5

Solubility: In water in all proportions

Specific Gravity: 1.192

Lbs. per gallon: 9.9

Properties:

CNC REZ PV is a modified glyoxal base cross-linking agent containing a latent catalyst. It provides a convenient low cost method for producing high quality "Wash & Wear" or "Durable Press" finishes. In spite of the contained catalyst, spontaneous polymerization does not occur and shelf life is excellent.

The composition of CNC REZ PV is such that tensile strength, tear strength and abrasion loss are kept at a minimum.

CNC REZ PV treated fabrics are highly resistant to chloring bleaching and will not yellow at commonly encountered elevated temperatures.

Application:

CNC REZ PV is applied to the fabric by standard pad-dry-cure.

The proper concentration of CNC REZ PV to employ will be dependent on the type of fabric and wet pick-up obtained on the padder.

CNC CHEMICAL CORP.: Thermosetting Resins(Continued):**CNC REZ-SET CI:**

CNC REZ-SET CI was developed as the complete finish for elasticized fabrics. This thermosetting resin is highly concentrated and only small amounts are necessary to stabilize the standard spandex/nylon combination.

Outstanding Properties:

1. High solids.
2. Very stable in storage.
3. May be catalyzed with amine hydrochloride, magnesium chloride, zinc nitrate or any of the standard organic and inorganic accelerators.
4. Standardized at 2% free formaldehyde or less.

Specifications:

Appearance: Clear liquid

pH: 8

Solubility: All proportions in water

Application:

CNC REZ-SET CI is simply added to water at the desired concentration.

CNC REZ TLG:

CNC REZ TLG is a high polymer modified urea-formaldehyde syrup resin.

Properties:

CNC REZ TLG is a very viscous syrup resin that is designed to produce a full firm hand with a minimum of harshness. Compatibility with resins, softeners and other textile auxiliaries is excellent. CNC REZ TLG has storage stability up to one year at normal temperature.

Specifications:

Chemical nature: High polymer modified urea-formaldehyde syrup resin

Appearance: Clear, viscous liquid

pH 5% solution: 8.0

Application:

CNC REZ TLG is soluble in water at any temperature and should be added to the finishing bath at any time prior to the catalyst.

CNC CHEMICAL CORP.: Water Repellents:

CNC ARIDRY AA:

CNC ARIDRY AA is a wax-type aluminum water repellent which is used as an excellent all-purpose repellent for synthetics. The product is also a napping aid for nylon and/or orlon fleece fabrics.

Properties:

CNC ARIDRY AA is a combination of high melting point waxes and aluminum salts. This product is homogenized twice to insure fine particle size and a very smooth, free-flowing emulsion. CNC ARIDRY AA may be padded on or may be exhausted as the last rinse in a jig or beck.

Specifications:

Appearance: White, free flowing liquid

Chemical nature: Combination wax aluminum salt emulsion

pH : 4.5+-0.5

Density: 8.5 lbs. per gallon

Application:

In most cases, 10% CNC ARIDRY AA based on the total liquor volume is sufficient to give excellent spray ratings on the treated fabrics.

CNC ARIDRY AA-67:

CNC ARIDRY AA-67 is a wax-type aluminum water repellent which is used as an excellent all-purpose repellent for synthetics. The product is also a napping aid for nylon or orlon fleece fabrics.

Properties:

CNC ARIDRY AA-67 is a combination of high melting point waxes and aluminum salts. This product is homogenized twice to insure fine particle size and a very smooth, free-flowing emulsion. CNC ARIDRY AA-67 may be padded on or may be exhausted as the last rinse on a jig or beck.

Specifications:

Appearance: White, free-flowing liquid

Chemical nature: Combination wax aluminum salt emulsion

pH: 4.5+-0.5

Density: 8.5 lbs. per gallon

Application:

In most cases, 10% CNC ARIDRY AA-67 based on the total liquor volume is sufficient to give excellent spray ratings based on the treated fabrics.

CNC CHEMICAL CORP.: Water Repellents(Continued):**ARIDRY B:**

Durable Water Repellent

Properties:

ARIDRY B is a methylol stearamide water repellent which is extremely durable to washing and dry cleaning.

ARIDRY B may be used alone or may be used in conjunction with CRF or permanent press finishes where water repellency and mellow hand are necessary.

ARIDRY B is an excellent extender for use with the fluoro-carbons on many types of goods.

ARIDRY B may be accelerated by any of the acid type catalysts such as zinc nitrate or ammonium sulfate.

Specifications:

pH: 8.5

Appearance: Off-white dispersion

Solubility: Readily dispersible in water

Applications:

1% to 4% ARIDRY B when used for softening.

4% to 6% ARIDRY B when used in conjunction with fluorocarbons for water and stain repellency.

7% to 19% ARIDRY B when used in conjunction with CRF or permanent press finishes on 100% cotton poplin fabrics.

CNC ARIDRY C:

CNC ARIDRY C is a water repellent designed primarily as semi-durable to durable water repellent for most hydrophobic fibers, especially nylon. This product is also an excellent extender for fluorochemical finishes.

Properties:

1. May be run alone or in conjunction with thermosetting and thermoplastic resins.
2. Extremely efficient water repellent for nylon outerwear.
3. No mark-off problems with CNC ARIDRY C.
4. CNC ARIDRY C has excellent running properties.
5. Minimum of smoke build-up in frame.
6. Government approved for Quarpel finishes.

Specifications:

Chemical nature: Reactive resinous emulsion

Appearance: Free-flowing, off-white emulsion

Solubility: Dispersible in water at any concentration

Density: 8.6 pounds per gallon

Application:

In most applications CNC ARIDRY C is run in conjunction with thermosetting resins.

CNC CHEMICAL CORP.: Water Repellents(Continued):

CNC ARIDRY CP:

CNC ARIDRY CP is a liquid surface size and a cationic water repellent designed primarily for the paper industry. This versatile product has the following characteristics:

1. May be run alone or in conjunction with other cationic or non-ionic sizes or resins.
2. Will develop sizing or water repellency by coating, size press pad or beater application.
3. An excellent extender for expensive fluorochemical finishes

Physical Properties:

Appearance: Liquid, off-white emulsion

Solubility: Dispersible in water at any concentration

Density: 8.6 lbs. per gallon

Application:

The concentration of CNC ARIDRY CP used and the method of application will determine the degree of sizing or water repellency.

CNC ARIDRY FC:

CNC ARIDRY FC is a cationic water repellent designed primarily as semi-durable to durable water repellent for most hydrophobic fibers, especially nylon. This product is also an excellent extender for fluorochemical finishes.

Properties:

1. May be run alone or in conjunction with thermosetting and thermoplastic resins.
2. Extremely efficient water repellent for nylon outerwear.
3. No mark-off problems with CNC ARIDRY FC.
4. CNC ARIDRY FC has excellent running properties.
5. Minimum of smoke build-up in frame.

Specifications:

Chemical nature: Reactive resinous emulsion-cationic

Appearance: Free-flowing, off-white emulsion

Solubility: Dispersible in water at any concentration

Density: 8.6 pounds per gallon

Application:

In most applications CNC ARIDRY FC is run in conjunction with thermosetting resins.

CNC CHEMICAL CORP.: Water Repellents(Continued):**ARIDRY N:**

ARIDRY N is an anionic water repellent designed primarily as semi-durable to durable water repellent for most hydrophobic fibers, especially nylon.

Properties:

1. May be run alone or in conjunction with thermosetting and thermoplastic resins.
2. Extremely efficient water repellent for nylon outerwear.
3. No mark-off problems with ARIDRY N.
4. ARIDRY N has excellent running properties.

Specifications:

Chemical nature: Reactive wax emulsion--anionic
Appearance: Free-flowing, off-white emulsion
Solubility: Dispersible in water at any concentration
Density: 8.6 pounds per gallon

Application:

In most applications, ARIDRY N is run in conjunction with thermosetting resins.

CNC ARIDRY P:**Durable Water Repellent****Properties:**

ARIDRY P represents a resinous amide water repellent that is extremely durable to dry cleaning and laundering. ARIDRY P is compatible with most textile auxiliaries that are commonly used at the plant. Many effects can be obtained with the addition of resin hand builders, etc., along with fluorochemicals. ARIDRY P is an excellent extender for the latter.

Specifications:

pH: 8.5+-0.1
Appearance: White emulsion
Solubility: Excellent

Application:

ARIDRY P can be used as a softener, water repellent, water repellent shrinkage control combination and as an extender for SCOTCHGARD or ZEPEL (fluorochemicals).

CNC CHEMICAL CORP.: Water Repellents(Continued):

CNC ARIDRY PN:

A reactive water repellent and fluorochemical extender

Specifications:

Appearance: a white, liquid emulsion

pH: 4-4.5

Solubility: excellent at all concentrations

Chemical Nature: a resinous, reactive emulsion

Advantages:

1. Very economical extender for fluorochemicals
2. Produces a soft, to medium hand
3. Applicable to nylon, polyester, cotton and rayon

Application:

Adjust pad bath to pH 5 with acetic acid. CNC ARIDRY PN is simply added to the pad bath at room temperature with mild agitation.

ARIDRY SN-25--ARIFIX SN:

ARIDRY SN-25 is a fine silicone emulsion which produces highly durable water repellency on treated fabrics. ARIFIX SN is the catalyst recommended for use with ARIDRY SN-25. These products can be run alone or in conjunction with thermosetting resins, cationic dye fixturers and most all of the organic and inorganic accelerators. Some of the waxy type softeners are compatible with a resin-silicone mix, but each must be checked carefully to be sure that it does not cause back-wetting.

Properties:

ARIDRY SN-25 and ARIFIX SN can be run over extended periods of time with no evidence of tailing or oil spot formation.

ARIDRY SN-25 and ARIFIX SN will cure at the same temperatures as the thermosetting resin being used in the mix.

ARIDRY SN-25 and ARIFIX SN will not cause mark-off if processed properly.

The combination of these two products on cloth produces a very smooth, pleasing hand.

Specifications:

ARIDRY SN-25:

Chemical nature: Non-ionic

Appearance: White, free-flowing liquid

ARIFIX SN:

Chemical nature: Metallic compound dispersion

Appearance: Cream colored liquid

CNC CHEMICAL CORP.: Water Repellents(Continued):**ARIDRY SN-50--ARIFIX SN:**

ARIDRY SN 50 is a fine silicone emulsion which produces highly durable water repellency on treated fabrics. ARIFIX SN is the catalyst recommended for use with ARIDRY SN 50. These products can be run alone or in conjunction with thermosetting resins, cationic dye fixatives and most all of the organic and inorganic accelerators. Some of the waxy type softeners are compatible with a resin-silicone mix, but each must be checked carefully to be sure that it does not cause back-wetting.

Properties:

ARIDRY SN 50 and ARIFIX SN can be run over extended periods of time with no evidence of tailing or oil spot formation.

ARIDRY SN 50 and ARIFIX SN will cure at the same temperatures as the thermosetting resin being used in the mix.

ARIDRY SN 50 and ARIFIX SN will not cause mark-off if processed properly.

The combination of these two products on cloth produces a very smooth, pleasing hand.

Specifications:**ARIDRY SN 50:**

Chemical nature: Non-ionic

Appearance: White, free-flowing liquid

ARIFIX SN:

Chemical nature: Metallic compound dispersion

Appearance: Cream colored liquid

CNC ARIDRY SOL:

A solvent-soluble water repellent used for water repellent treatment of fibers and garments from a solvent media.

Properties:

1. A combination of waxes and metallic salts dissolved and suspended in a hydrocarbon solvent.
2. CNC ARIDRY SOL is an opaque unctuous paste.
3. The flash point is not less than 110F.
4. Density is approximately 7.5 lbs. per gallon.

Application:

The recommended amount to use is 7 to 10% based on the weight of the fabric.

The fabric is immersed in the solvent and extracted, taking precautions to prevent ignition at drying temperatures.

CNC CHEMICAL CORP.: Water Repellents(Continued):

CNC ARIDRY SS-80:

A non-durable water repellent

Properties:

ARIDRY SS-80 has been developed as a specialty water repellent to be used where many other hand builders and auxiliaries are used without sacrificing a high degree of water repellency. ARIDRY SS-80 is a one-package zirconium product that incorporates a blend of emulsifiers that lend an inherent uniqueness to the product. ARIDRY SS-80 can be applied to many types of fabrics but is particularly effective on rayon linings.

Specifications:

Solubility: Excellent in cold water
Compatability: Good with most auxiliaries
pH: 3.5+-0.1
Appearance: Milky white emulsion

CNC ARIDRY WSR:

CNC ARIDRY WSR is a pre-catalyzed durable silicone water repellent.

Specifications:

Appearance: Water-thin emulsion
Color: White
Solubility: Dispersible in water
pH: Approximately 4.0

Advantages:

1. Can be exhausted from dyebeck or padded.
2. Minimum temperatures needed for setting.
3. No effect on shade or tensile strength.
4. Improves sewability.
5. Durable to washing.
6. Durable to dry-cleaning.

CNC ARIDRY Z:

CNC ARIDRY Z is a wax-type zirconium water repellent which is used as an excellent all-purpose repellent for synthetics. The product is also a napping aid for nylon or orlon fleece fabrics.

Properties:

CNC ARIDRY Z is a combination of high melting point waxes and zirconium salts. This product is homogenized twice to insure fine particle size, and a very smooth, free-flowing emulsion. CNC ARIDRY Z may be padded on or may be exhausted as the last rinse on a jig or beck.

Specifications:

Chemical nature: Combination wax-zirconium salt emulsion
Appearance: White free flowing liquid
pH: 4.0-4.5
Density: 8.5 lbs. per gallon

CNC CHEMICAL CORP.: Wetting Agents:**CNCOMERSE IMP:**

A non foaming, biodegradable mercerizing penetrant.

Properties:

This product represents a new and improved high efficiency mercerizing penetrant which contains no cresylic acid. When used at proper concentrations in mercerizing caustic soda almost instantaneous wetting and penetration occurs. This permits faster speeds on the mercerizing equipment.

Specifications:

Chemical nature: alkyl phospho-sulfate

pH: 4.0+-0.3

Appearance: clear, yellow liquid

Application:

CNCOMERSE IMP should be used at a concentration of 0.5% to 1.0% (by weight) based on mercerizing caustic for highest efficiency. This amounts to 5 to 10 pounds to 100 gallons of caustic.

CNC DISPERSION PE:

CNC DISPERSION PE is a complex phosphate ester of nonionic surfactants of the ethylene oxide type. It is a 99% active substance and dissolves off-clear in water. It is the base or starting point of many novel products.

Specifications:

Acid ester: 49% active

Acid value: 234

pH (5% solution): 2.0

Specific gravity: 1.055

Density: 8.8 lbs. per gallon

Application:

CNC DISPERSION PE forms self-emulsifiable concentrates when mixed with many solvents; for example, butyl benzoate.

When alkali is added such as sodium hydroxide, triethanol-amine, potassium hydroxide and water, many interesting surfactants may be made. A calculated amount of alkali may be used, keeping in mind that the acid value is approximately 234.

The surfactants so made have many interesting properties in addition to detergency. They are low-foaming, can tolerate alkalie, have emulsification and antistatic properties. They have rust inhibition and are often used as lubricants.

CNC CHEMICAL CORP.: Wetting Agents(Continued):

CNC PAL NRW:

CNC PAL NRW is a non-ionic surfactant/wetting agent

Advantages:

1. Promotes stability of water repellent and fluorochemical baths.
2. Product is thermodegradable - will not rewet after curing.
3. Not affected by hard water.

Specifications:

Appearance: pale liquid

pH: 7.2

Ionic nature: non-ionic

Chemical nature: ethoxylated surfactant

Application:

CNC PAL NRW can be added directly to the finishing mix at the rate of 0.25% to 2.0% (owb) depending upon the type of goods being processed and the demands for good wetting.

CNC PAL V-8 SUPRA:

An efficient detergent and emulsifier for textile processing.

Advantages:

1. Excellent emulsifier for solvents used for oil removal.
2. Excellent emulsifier for solvents used in dyeing polyester.

Specifications:

Chemical nature: surfactant blend

pH: 8

Ionic nature: anionic

Appearance: amber liquid

CNC CHEMICAL CORP.: Wetting Agents(Continued):**CNC SOL 72-N:**

Anionic wetting and rewetting agents

Properties:

CNC SOL 72-N represents a powerful surfactant that is stable in the presence of dilute acids and alkalies and is effective in hard and soft water. When used in high acid and alkali solutions, the product breaks down and wetting efficiency is lost. CNC SOL 72-N produces a small amount of foam which is not objectionable.

Uses:

CNC SOL 72-N has a variety of uses that are advantageous to the finisher or dyer. Possessing high wetting properties, it can be used in any pad application, sizing bath, desizing operation, packaged dyeing, vat dyeing and preparations of goods for printing or sanforizing. When dried into the goods, CNC SOL 72-N will rewet quickly which increases absorbency where required.

Application:

When used as a wetting agent, 1-2 pounds of CNC SOL 72-N per 100 gallons will insure thorough wetting of most fabrics that contain starch, wax or other impurities. It is an excellent dye dispersant for acid dye baths, direct colors and vats.

Specifications:

Solubility: Good

Active content: 25% (73-N = 50%, 75-N = 75%)

pH (1% solution): 5.0+-0.5

Nature: Anionic

Specific gravity: 8.5 lbs per gallon

CNC WET CP:

Wetting and Dispersing Agent

Properties:

CNC WET CP represents an acid and alkali stable wetting agent and dyeing assistant. CNC WET CP is classified chemically as a phosphated long chain alcohol and has the following advantages:

1. All purpose phosphated alcohol
2. Excellent stability at a wide range of pH and in the presence of great amounts of caustic, sulfuric acid, sodium chloride, sodium sulfate, ammonium sulfate and all types of bleaching agents.
3. Good dispersing agent for pigments and dyes.
4. Very efficient wetter in peroxide bleach baths.
5. Does not destroy enzyme action.
6. Being a free rinser, it is excellent for preparation of goods to be water-proofed

Specifications:

pH (1% solution): 8.1

Appearance: Amber liquid

Solubility: Cold water

Density: 8.6 lbs. per gallon

CNC CHEMICAL CORP.: Wetting Agents(Continued):

CNC WET CP-133:

(and CNC WET CP-133-D (defoamed)):

All purpose wetting agent and cold bleach assistant.

Properties:

CNC WET CP-133 represents a wetting agent for the bleaching process. It is effective at hot or cold temperatures which makes it extremely versatile in the bleach house. CNC WET CP-133 remains stable and performs at wide pH ranges. This product possesses excellent emulsifying and detergent properties plus being a free rinser; prevents redeposition of waxes, oils and other foreign materials on the fabric.

Specifications:

pH (1% solution): 8.1

Appearance: Amber liquid

Solubility: Excellent in cold or hot water

Density (lbs. per gal.): 8.6

Application:

CNC WET CP-133 can be used for all phases of wet processing.

CNC WET CP CONC.:

Wetting and Dispersing Agent

Properties:

CNC WET CP CONC. represents an acid and alkali stable wetting agent and dyeing assistant. CNC WET CP CONC. is classified chemically as phosphated long chain alcohol and has the following advantages:

1. All purpose phosphated alcohol
2. Excellent stability at a wide range of pH and in the presence of great amounts of caustic, sulfuric acid, sodium chloride, sodium sulfate, ammonium sulfate and all types of bleaching agents
3. Good dispersing agent for pigments and dyes
4. Very efficient wetter in peroxide bleach baths
5. Does not destroy enzyme action
6. Being a free rinser, it is excellent for preparation of goods to be water-proofed.

Specifications:

pH (1% solution): 8.1

Appearance: Amber liquid

Solubility: Cold water

Density (lbs. per gallon): 8.6

Application and Uses:

CNC WET CP CONC. is a unique dispersant, leveler and surfactant that can be used advantageously throughout the plant in preparation, dyeing and finishing of cotton and synthetics.

CNC CHEMICAL CORP.: Wetting Agents(Continued):**CNC WET SS-80:**

Detergent, Dispersing and Wetting Agent

Properties:

CNC WET SS-80 represents an acid and alkali stable auxiliary. CNC WET SS-80 is classified chemically as an anionic long chain alcohol and has the following advantages:

1. All purpose surfactant.
2. Very efficient wetter for caustic and peroxide baths.
3. Free rinser - excellent for goods that must subsequently be water repelled.
4. Good emulsifier for greige mill oils and dirt.

Specifications:

pH: 8.5

Appearance: Amber liquid

Solubility: Cold water

Density: 8.7 lbs. per gallon

Application and Uses:

CNC WET SS-80 is soluble in any proportion in cold or warm water as little as 0.25%. CNC WET SS-80 does an excellent job as a wetter or scour in the kier, open width boil-off, package machine, pad box, jig or dye beck.

Oils & Lubricants:**CNC Conditional W:**

CNC Conditional W is a water-clear liquid which wets out easily.

Specifications:

Chemical nature: Nonionic

Solubility: Miscible in water, either hot or cold

pH: 8.0 to 8.5

Specific gravity: 1.07

Active matter: 40%

Wt. per gallon: 8.8

Application:

CNC Conditional W is used as a humectant, lubricant and weighter. It is usual to spray a 5% or 10% solution on the goods prior to processing. Other means of application may be used.

CORN PRODUCTS: Specialty Starch Products:

Product by Trade:
Trade: Textile

Country: Argentina

Use:	Products:
Sizing	3404-5821-5861-7305
Finishing	3401-7302-7305
Printing	8011-8041

Product By Trade:
Trade: Textile

Country: Colombia

Use:	Products:
100% Cotton yarns sizing	3301-Unmodified-Industrial grade-Reg. corn starch
100% Cotton yarns sizing	3399-Unmodified-Industrial grade-Reg. corn starch
100% Cotton yarns sizing	3290-Unmodified-With chem. add. (5 FL)-Industrial grade-Reg. corn starch
Polyester: Cottons yarns sizing	5860-Acetylated(60FL)-Industrial grade-Waxy corn starch

Product by Trade:
Trade: Textile

Country: CACM

Use:	Products:
Finishing/Weaving	3404
" "	5002
" "	5341
" "	5321

Product by Trade:
Trade: Textiles

Country: Mexico

Use:	Products:
Warp size	5012, 5018, 5063, 6440, 6488
PVOH and/or CMC Extender	5018, 5063
Finishing	3401, 4008, 6440, 6487
Dyeing	1132

Product by Trade:
Trade: Textiles

Country: Uruguay

Use:	Products:
Warp sizing	5821, 5861, 5541, 5561, 5583, 3409
Finishing	3409, 5821, 5541
Printing	9031

CORN PRODUCTS: Specialty Starch Products(Continued):**Product by Trade:****Trade:** Textile**Country:** Brazil**Use:**

Cotton and mixed yarns	3000, 5031, 5051, 5442, 5482,
sizing	6440, 6460
Printing	8041, 7010
Finishing	8041, 7010, 7081, 5031, 5051,
	5442, 5482

<u>Product Code</u>	<u>Definition</u>
3000	Unmodified industrial corn starch
5031	Acid thinned corn starch (22 gr. Scott = 56-70 sec.)
5051	Acid thinned corn starch (28.35 gr. Scott = 50-60 sec.)
5442	Acetylated acid thinned corn starch (28.35 gr. Scott = 40-50 sec.)
5482	Acetylated acid thinned corn starch (75 gr. Scott = 35-45 sec.)
6440	Acetylated acid thinned waxy corn starch (28.35 gr. Scott = 40-50 sec.)
6460	Acetylated acid thinned waxy corn starch (40 gr. Scott = 45-55 sec.)
8041	Corn british gum (% solubles = 60-75; 1:3 fluidity = 12-22 ml)
7010	Corn white dextrin (% solubles = 24-28; 1:3 fluidity = 22-32 ml)
7081	Corn white dextrin (% solubles = 95 min.; 3:4 fluidity = 10-22 ml)

CRODA INC.: INCROSOFT Fabric Softeners:

These quaternary based fabric softeners are frequently used at 6% active for textile finishing.

Product:

INCROSOFT S-75:

Quaternium-27

Yellow Liquid/Slurry

Percent Active: 75

Easy to handle, lower solids content, general purpose fabric softener with superior softening properties. Typical use levels 5-10%

INCROSOFT S-90:

Quaternium-27

Viscous Yellow Paste

Percent Active: 90

Typical use levels 5-10%

INCROSOFT S-90M:

Quaternium-27

Viscous Yellow Paste

Percent Active: 90

Improved solubility in detergent softener systems for ease of formulation. Superior hard water tolerance. Typical use levels 5-10%.

INCROSOFT T-75:

Quaternium-53

Yellow Liquid

Percent Active: 75

A diluted version of T90, for ease of handling. Typical use levels 5-10%.

INCROSOFT T-90:

Quaternium-53

Viscous Yellow Liquid/Paste

Percent Active: 90

Excellent softening agent with outstanding rewetting. Best general purpose fabric softener. Typical use levels 5-10%.

INCROSOFT T-90HV:

Quaternium-53

Yellow Paste

Percent Active: 90

A high viscosity version of T90. Typical use levels 5-10%.

INCROSOFT 248:

Quaternium-72

Yellow Solid

Percent Active: 90

Recommended as the softening agent in dryer sheets.

Typical use levels 5-10%

CRODA INC.: INCROSOFT Fabric Softeners(Continued):**Product:****INCROSOFT CFI-75:**

Quaternium-72

Clear Yellow Liquid

Percent Active: 75

Used in detergent and fabric softener systems compatible with non-ionics to form clear liquid detergent/softener blends. Typical use levels 5-10%.

INCROSOFT 100:

Methyl Bis (Hydrogenated Tallow amido ethyl)2-Hydroxyethyl Ammonium Chloride

Pale Yellow Flake or Powder

Percent Active: 100

New solid fabric softener available in powder form for formulating powdered softeners or flaked form for liquid softeners. Very substantive, good hand and antistatic properties. Typical use levels 5-30%.

DAN RIVER INC.: Textile Finishing Chemicals:

ASM 1.2:

ASM 1.2 is a sodium silicate solution having a weight ratio of SiO₂ to Na₂O of 1.2 which is useful as a stabilizer for peroxide bleaching.

Typical Properties:

Color (APHA): <30
Appearance: Clear to slightly hazy liquid
Specific Gravity: 1.20-1.30
Alkalinity: 12.0-12.5% (as NaOH)
SiO₂/Na₂O Ratio: 1.2/1 (by weight)

Applications:

ASM 1.2 is a sodium silicate solution which has been designed specifically for use as a stabilizer in the peroxide bleaching of textiles.

CATALYST 370:

CATALYST 370 is a catalyst for textile creaseproofing resins which contains no chlorides and no zinc.

Typical Properties:

Appearance: Clear liquid
% Solids (as Hydrate): 66-68%
Specific Gravity (25C): 1.350-1.355
pH: 4.3-4.7

Applications:

CATALYST 370 may be used to catalyze all types of textile creaseproofing resins, but it is especially useful with resins derived from glyoxal.

CATALYST LCN:

CATALYST LCN is a magnesium salt catalyst for textile finishing resins which has been modified to provide stronger catalytic action than that provided by magnesium chloride catalysts. It provides catalytic action equivalent to that of zinc nitrate or zinc chloride without the deleterious effects on whiteness and shade which zinc catalysts sometimes produce.

Typical Properties:

Appearance: Clear, water-white liquid
Specific gravity: 1.155-1.165
pH: 2.0-3.0

General Applications:

CATALYST LCN is a magnesium salt catalyst that is designed to produce stronger catalytic action than magnesium chloride catalysts.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**CATALYST MC:**

CATALYST MC is a 64% solution of magnesium chloride hexahydrate in water which is designed for use as a catalyst with textile resins.

Typical Properties:

Appearance: Clear, colorless liquid
pH: 5.0-5.5
Storage Stability: Indefinitely stable
Solubility: Miscible with water in all proportions
% Active ($\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$): 64+-1.0%
Weight per Gallon: 10.6 pounds

Applications:

CATALYST MC is a very pure grade of magnesium chloride manufactured for use as a catalyst for textile creaseproofing resins.

CATALYST PD:

CATALYST PD is an inorganic metal salt-based catalyst providing a higher degree of catalytic action than the conventional magnesium chloride catalyst which is widely used in the trade. It is specifically recommended for use in resin systems when the fabric is to be printed after finishing to prevent wicking or flushing of the colors. It is not recommended for use, across the board, for all finishing operations since it is known to cause shade change of vat blues on curing.

Typical Properties:

Specific Gravity (25C): 1.067+-0.010
pH: 2.0-3.0
Appearance: Clear
Color: Less than APHA 30

Application:

CATALYST PD is an inorganic metal salt-based catalyst which provides a stronger catalytic action than the conventional magnesium chloride solutions(straight or modified).

CATALYST TM:

CATALYST TM is a magnesium salt based catalyst for textile finishing which has been modified to provide stronger catalytic action than that provided by unmodified magnesium chloride catalysts. In addition it will not cause prints to flush when printing is done on fabrics which have been finished and not washed.

Typical Properties:

Appearance: clear, colorless liquid
Specific Gravity (25C): 1.07-1.09
pH: 2.5-3.5
Color (APHA): 50 max.

Applications:

CATALYST TM is a magnesium chloride based catalyst which is designed to produce stronger catalytic action than ordinary magnesium chloride catalysts.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

CLEANER CPD-1:

CLEANER CPD-1 was designed as a textile slasher cleaner. It is used in clean up operations after all yarn has been removed from the slasher. It should never be allowed to come in contact with usable yarn. CPD-1 is brushed or sprayed on to all parts of the slasher and allowed to stand for 3-5 minutes. The equipment is then brushed again with fresh CPD-1 and this application allowed to stand for 5 minutes. The treated area is then washed with a stream of fresh water. Where there is a very thick buildup of starch or PVA, the above procedure may have to be repeated.

Specifications:

pH 1% solution: 12.5 to 13.5
Specific Gravity: 1.054 to 1.074
Color: Dark Amber
Appearance: Clear
Odor: Musty

DANCHEM DR:

DANCHEM DR is a plasticized high molecular weight nonionic hydrotrope for use in continuous dyeing to promote saturation wetting of fabric during padding and to maintain smooth, uniform surface appearance of dyed goods. Results obtained on ill-prepared fabric rival those of vacuum impregnation.

Chemical Nature:

Modified long chain polymer

Specifications:

Appearance: Clear, viscous liquid
Viscosity: Approximately 1000 cP
pH: 6.5-7.5
Specific Gravity: 1.010

DANCO FX:

DANCO FX is a very efficient general-purpose detergent for all fibers which is unaffected by hard water and is stable at temperatures up to the boil in both acid and alkaline solutions. It is a blend of nonionic and anionic surfactants which has been specially compounded for textile use. It is especially useful for soaping fiber reactive, azoic and vat dyes after dyeing or printing and for scouring prior to dyeing.

Typical Properties:

Appearance: Clear, straw-colored liquid
Active Ingredients: 35%
Ionic Character: Nonionic-Anionic
pH: 9.0-10.0

General Application:

DANCO FX may be used in textile wet processing whenever an efficient general purpose detergent is needed.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**DANFIRM VA:**

DANFIRM VA is a 55% solids polyvinyl acetate emulsion for use in textile finishing as a hand builder.

Typical Properties:

Appearance: Opaque white emulsion

Solids Content: 55%

pH: 4.0-5.0

Viscosity: 800-1200 cps

Ionic Character: Nonionic

Particle Size: Average <1 micron

Maximum <8 microns

General Application:

DANFIRM VA is used primarily in finishing baths for fabric stiffening. It is a very efficient and economical hand builder. It tends to produce a stiff, full leathery hand as opposed to the thin, crisp hand produced by polyvinyl alcohol and starch derivatives. Being nonionic in nature, it is highly compatible with a wide variety of resins, softeners, catalysts and other finishing bath components. DANFIRM VA has excellent running properties and will not present roll and clip build-up problems.

DANSCOUR VN:

DANSCOUR VN is a caustic stable wetting and scouring agent for use in caustic solutions of moderate strength (up to 7%).

Typical Properties:

Physical Appearance: Slightly viscous liquid

APHA Color: <50

Percent Active Agent: 78

Specific Gravity: 1.100-1.108

Ionic Nature: Anionic

pH: 7.5-8.5

DANSET 384:

DANSET 384 is a textile finishing resin which has been designed to afford extremely low formaldehyde evolution from fabrics finished with it. It will afford formaldehyde odor level potential values of below 200 ppm by AATCC Test Method 112-1978 for partially or fully cured finishes on properly prepared and finished fabrics without afterwashing.

Typical Properties:

Appearance: Clear liquid

Color (APHA): Less than 30

Specific Gravity: 1.100-1.115

pH: 3.3-3.7

General Application:

DANSET 384 is a uniquely modified, unbuffered, glyoxal-based resin for permanent press work, either pre- or post-cured. It provides improved formaldehyde evolution potential and chlorine resistance over conventional glyoxal-based resins.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

DANSET JS:

DANSET JS is an unique modified glyoxal resin which has been tailored to provide minimum formaldehyde odor in finishing and on the finished fabric.

Typical Properties:

Appearance: Clear liquid
Color (APHA): Less than 50
Specific Gravity (25C): 1.130-1.140
pH: 3.7-3.9
Free Formaldehyde: Less than 1%

General Application:

DANSET JS is an uniquely modified, unbuffered, glyoxal-based resin for permanent pres work, either pre- or post-cured. Magnesium chloride based catalysts are recommended for use with DANSET JS, although other metal salt catalysts can be used.

Formaldehyde odor values of below 500 ppm, as measured by AATCC Test Method 112-1979, are normal on finished fabrics which have been treated with DANSET JS. Formaldehyde odor in the finishing plant is also low with DANSET JS.

DANSET MUF:

DANSET MUF is a 64% solids urea formaldehyde condensate in clear liquid form, modified for maximum storage stability. The resin will remain completely water soluble for over a year at room temperature. Its minimum degree of polymerization makes it ideal for shrinkage control and wash and wear properties on rayon and rayon blend fabrics and other cellulosics.

DANSET MUF alone affords a lofty hand on rayon. If more crispness is required, DANSET BLD may be added to the formula. DANSET MUF is compatible with most commonly used water soluble resins, softeners and catalysts.

Typical Properties:

Appearance: Clear, water white, nonviscous liquid
Solids: 64% (by vacuum drying)
pH: 9.3-9.5
Specific Gravity: 1.190-1.200
Viscosity: 50-100 centipoise
Free Formaldehyde: Less than 3%
Flash Point: >200F

Application to Fabric:

Fabrics to be finished should be absorbent, neutral and free from buffers.

DAN RIVER, INC.: Textile Finishing Chemicals(Continued):**DANSIL 24:**

DANSIL 24 is a reactive softener for durable press fabric treatment. It is a stable, water dilutable silicone emulsion. Its principal use is as a softener with durable press resins. It imparts increased wrinkle recovery, improved flex abrasion resistance and a soft lively hand to fabrics so treated.

DANSIL 24 can be used to replace organic softeners used with durable press resins, or it can be used in combination with organic softeners.

Physical Properties:

Appearance: Milky-white emulsion

pH: 6.5+-0.5

Solids: 25% by weight

Density, pound/gallon: 7.8

Flash Point, F: None

Diluent: Water

Loading:

In general loadings of 0.2-1.0 percent silicone solids based on the weight of the fabric, will give excellent performance in conjunction with durable press resins.

DANSPERSE N:

DANSPERSE N is an excellent dispersant for dyes which are applied to yarns or fabrics in the form of a dispersion such as disperse dyestuffs and vat pigments. It will assure a good dispersion of dye particles and prevent agglomeration of the dye particles during the dyeing cycle. It is also useful for stain removal when reworking stained fabrics.

Typical Properties:

Appearance: Clear, Dark Brown Liquid

Per Cent Solids: 40%

Specific Gravity (25C): 1.20

Solubility: Completely Soluble in Water

Ionic Character: Anionic

Stability: Indefinite. Keep from Freezing.

DISPERSANT HT:

DISPERSANT HT is a disperse dyeing auxiliary designed for use in the high-temperature dyeing of polyester. The product is particularly effective for promoting interfacial migration of both fixed and unfixed dye during the course of the dyeing. Through its functions of maintaining the homogeneity of the particulate dispersion and increasing the amount of dye in the molecular solution form, DISPERSANT HT promotes controlled, uniform sorption of dye by the fiber surface throughout the textile mass. Prolonged periods for dye transfer at the final dyeing temperature are minimized. Uniform dyeing from start to finish is achieved.

Typical Properties:

Chemical Nature: Balanced blend of Anionic/Nonionic Tensides

pH: 9.5-10.0

Specific Gravity: 1.13

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

KELATE CB:

Chelating agent for continuous preparation and bleaching.

KELATE CB is a unique chelating agent which will effectively control contaminating metallic ions under a wide range of wet processing conditions.

KELATE CB is recommended for continuous caustic preparation to give an improved base, and for continuous peroxide bleaching to give better whiteness.

Typical Properties:

Appearance: Clear yellow liquid

pH (1% Solution): 11-12

Pounds per Gallon: 9.89

Specific Gravity: 1.185

Advantages:

1. Will insure a consistent uniformity of high quality production.
2. Versatility - stable and effective in both caustic preparation and peroxide bleaching.
3. Fully effective for controlling both copper and iron contaminants.
4. Chelates calcium and magnesium salts and prevents build-up of insoluble deposits on processing equipment.
5. Will control but not over-stabilize peroxide bleach.
6. Provides protection for the full processing cycle.

KELATE EG:

KELATE EG is a blend of chelating agents having chelating power for numerous divalent and trivalent metal ions over a broad pH range. It is especially useful under conditions where iron is a problem.

Typical Properties:

Appearance: Clear, dark amber liquid

pH (1% Solution): 10.5-11.5

Specific Gravity: 1.14

Pounds per Gallon: 9.5

Applications:

KELATE EG chelates a variety of divalent and trivalent metal ions over a wide pH range. It is especially useful in those instances where it is desirable to chelate the divalent metals such as calcium, magnesium and copper but where high iron chelation power is also important such as in caustic boiling and in dyeing.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**KELATE GH-50:**

KELATE GH-50 is a 50% aqueous solution of sodium glucoheptonates which effectively chelates polyvalent metals under strongly alkaline conditions.

Typical Properties:

Appearance: Clear brown amber liquid
Color (10% vol. solution): Gardner 9-12
Specific Gravity (20C): 1.295-1.305
Percent Solids: 50%+-1.0% by weight
pH: 10.5-11.5

Applications:

KELATE GH-50 is useful for sequestering polyvalent metals under highly alkaline conditions by forming water-soluble, non-ionizable complexes with the metal ions.

KELATE GH-50 is useful in caustic bottle washing, alkaline cleaning descaling and derusting of metals, as a cement additive and in the caustic treatment of textiles.

KELATE 80:

KELATE 80 is an aqueous solution of the pentasodium salt of diethylenetriamine pentaacetic acid. It is more stable to oxidation and forms more stable complexes with some metal ions than EDTA type chelating agents.

Typical Properties:

Appearance: Slightly viscous, clear, pale straw-colored liquid
Activity: 40% Min. DTPA Na3
pH (1% Solution): 11.0-12.0
Solubility: Completely soluble in cold water
Specific Gravity: 1.29-1.31
Chelating Power: 80 mg. CaCO3 per gram at pH 11

KELATE 100:

KELATE 100 is an aqueous solution of the tetrasodium salt of ethylenediamine tetraacetic acid. It is a very versatile chelating agent for controlling unwanted metal ions over a broad pH range.

Typical Properties:

Appearance: Slightly viscous, clear, pale straw-colored liquid
pH (1% Solution): 11-12
Solubility: Completely soluble in cold water
Chelating Power: 100 mg. CaCO3 per gram at pH 11

DAN RIVER, INC.: Textile Finishing Chemicals(Continued):

KELATE 100 PLUS:

KELATE 100 PLUS is a unique blend of amino carboxylic acid type chelating agents which combines the high chelate bond strength of DTPA, the wide-use versatility of HEDTA, the high iron and heavy metal chelating capacity of specialty chelates, and the economics of EDTA. It is the most economical and versatile chelating agent available for controlling unwanted metal ions over a broad pH range.

Typical Properties:

Appearance: Slightly viscous, clear, pale straw-colored liquid
pH (1% solution): 11-12
Solubility: Completely soluble in water
Specific Gravity: 1.27

KELATE 120:

KELATE 120 is a wide-use chelating agent specially designed for use in textile dyeing and finishing processes. Chemically it is the trisodium salt of hydroxy-ethyl ethylenediamine triacetic acid (HEDTA).

Typical Properties:

Appearance: Slightly viscous, straw colored liquid
Activity: 41% Min. HEDTA Na3
pH (1% Solution): 11-12 @ 25C:
Solubility: Completely soluble in cold water
Specific Gravity: 1.28-1.31
Chelating Power: 120 mg. CaCo3 per gram at pH 11

KELATE 220:

KELATE 220 is a spray-dried powder form of tetrasodium ethylenediamine tetraacetic acid (EDTA). It may be used wherever a chelating agent of the EDTA type in solid form is required.

Typical Properties:

Appearance: White Powder
Calcium Chelation Value: 210-220 mg/CaCO3/gm.
pH (1% Solution): 11-12
Water Solubility: 120 gms/100 gms. water @ 25C

Applications:

KELATE 220 is recommended for use wherever it is desirable to use a solid EDTA type product rather than a liquid product such as KELATE 100 as in dry blends or where shipment for long distances is a factor.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**LAURYL PYRIDINIUM CHLORIDE:**

LAURYL PYRIDINIUM CHLORIDE, technical grade, is a mottled, tan waxy solid packaged as a solidified melt in fiber drums. It is soluble in water, alcohol, glycols, acetone, and other organic solvents.

Typical Properties:

Appearance: Mottled, tan waxy solid
Molecular Weight: 292
Specific Gravity (25C): 0.99
Flash Point (Closed Cup): >200F
Alkyl Pyridinium Chloride Content: 85% Minimum
90% Typical

General Application:

LAURYL PYRIDINIUM CHLORIDE is a cationic surface active agent which is used as a dispersing and wetting agent to keep spinnerettes clean in the manufacture of viscose rayon. In the textile industry it is used as a stripping agent for vat and other dyes.

MERCERANT BEA:

MERCERANT BEA is a non-phenolic, non-staining mercerizing assistant having excellent wetting ability in 18-25% caustic soda at room temperature.

Typical Properties:

Physical Appearance: Liquid
Color: Light Yellow
Percent Active Agent: 35
Specific Gravity: 1.15-1.20
Ionic Nature: Anionic
pH: 6-8

General Application:

MERCERANT BEA is completely soluble in up to 25% caustic as well as in water, and its use accelerates wetting of fabric and yarn by high strength caustic, resulting in more rapid and complete penetration and thus in improved strength, luster, and absorbency.

Amounts of 10-15 g/l on the bath volume typically give good results. The amount to be used can vary with caustic strength, weight of goods, etc.

MERCERANT BEA can also be used as a wetting agent in low strength caustic (e.g. 5%) at elevated temperatures (eq. 180F). Under these conditions 1 g/l or less gives excellent wetting. As the temperature decreases the effectiveness of this product in low strength caustic rapidly decreases.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

NONIONIC A:

NONIONIC A is a 100% active, biodegradable nonionic surfactant for general purpose use.

Typical Properties:

Appearance: Clear, Colorless Liquid
Active Content: 100%
Ionic Character: Nonionic
Cloud Point (1% Aqueous Solution): 62C. (144F)
Flash Point (COC): 400F
Freezing Point: 1C (34F)
HLB: 14.0
Specific Gravity, 25/25C: 1.02
Pounds per Gallon: 8.5
Water Solubility, 25C: Soluble
Surface Tension (0.1% @ 25C): 29 Dynes/cm

NONIONIC A may be used in textile wet processing in almost any textile wet process where a nonionic wetting agent or detergent is needed. It is compatible with enzymes used in desize baths and may be used as a fast and thorough wetting agent at low concentrations in desizing. NONIONIC A is an excellent general use detergent for removing solid and oily soil from yarns and fabrics. It may also be used in soaping after dyeing or printing to remove unfixed dyestuff. It may be used alone or with builders, such as phosphates, or suspending and redeposition agents, such as carboxymethyl cellulose.

PVP K-30 TG Powder:

PVP K-30 TG Powder is poly (vinyl pyrrolidone) in a solid form having an average K value of 26-35.

Typical Properties:

Appearance: White to cream colored hygroscopic powder
Ionic Character: Nonionic
Solubility in Water: In all proportions
Moisture: 5% Maximum

General Applications:

PVP possesses outstanding complexing and colloidal properties. The product can be used in textile applications as a dye complexing agent useful in removing unwanted or loose color from dyed goods, as a retarding or leveling agent in pastel dyeing, or for preventing dye redeposition during scouring. PVP is also compatible in detergent formulations, and can be used as a protective colloid in some applications.

DAN RIVER, INC.: Textile Finishing Chemicals(Continued):**RETARDER SD:**

RETARDER SD is a leveling agent for vat, sulfur and direct dyes on cellulosic fibers.

Typical Properties:

Color: Dark brown liquid
Specific Gravity (25C): 1.09-1.10
Active Ingredients: 31%
pH: 7.5-9.0

General Application:

RETARDER SD is used advantageously in vat dyeing, sulfur dyeing, and direct dyeing as a leveling, dispersing, and penetrating agent.

RETARDER SD acts as a dispersing agent for dyestuffs and subsequently prevents the undesirable filtering out of dye particles on the yarn. In addition, RETARDER SD acts as a retarding and leveling agent, thus assuring consistent and uniform dyeings when used over an extended period of time. It is most effective in the case of poor leveling dyes and dyeing of pastel shades. RETARDER SD is effective as an aid to stripping down to shade or in stripping a significant percentage (30-40%) for redyeing. RETARDER SD causes a strong shift in the dyeing equilibrium from dye in fiber to dye in bath and thus is not usually economical for dyeing medium to heavy shades.

SCOUR DR:

SCOUR DR is a nonionic surfacant blend which is especially useful for removing oil spots and stains from fabrics during preparation.

Typical Properties:

Appearance: Clear, water-white liquid
% Activity: 30%
Specific Gravity: 0.984
pH: 6.5-7.5
Ionic Character: Nonionic

Applications:

SCOUR DR is designed to aid in the removal of oil spots and stains from fabrics during preparation. It may be used effectively in the desize bath if one is used or in any wet processing step prior to bleaching or dyeing. The use of 1-3% on the weight of the fabric is recommended for heavily stained goods.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

SOFTENER D:

SOFTENER D is an economical, non-yellowing cationic softener which may be used on a wide variety of fabrics. It is especially useful as a softener for denim.

Typical Properties:

Appearance: Soft, fluid paste
Color: Light amber
Chemical Type: Complex fatty amido quaternary
Ionic Character: Cationic
pH (5% solution): 5.0-6.0
Activity: 100%

Applications:

SOFTENER D is prepared for use by diluting with water at 100F with mild agitation. It may be applied by exhausting or padding.

SOFTENER D may be used on a wide variety of natural and synthetic fibers and blends including cotton, nylon, polyester, acrylics, and polyester/cotton blends. It provides excellent softness, lubricity, and drapability. It has good resistance to discoloration from heat, ageing, and ultraviolet light. Unlike many other cationic softeners, it does not reduce the absorbency of fabrics treated with it. SOFTENER D imparts anti-static and antidusting properties as well as softness.

SOFTENER D-25:

SOFTENER D-25 is an economical, non-yellowing cationic softener which may be used on a wide variety of fabrics. It is especially useful as a softener for denim.

Typical Properties:

Appearance: Clear liquid or very fluid paste
Color: Light amber
Chemical Type: Complex fatty amido quaternary
Ionic Character: Cationic
pH (5% Solution): 5.0-6.0
Activity: 25%

Applications:

SOFTENER D-25 is prepared for use by diluting with water at 100F with mild agitation. It may be applied by exhausting or padding.

SOFTENER D-25 may be used on a wide variety of natural and synthetic fibers and blends including cotton, nylon, polyester, acrylics, and polyester/cotton blends. It provides excellent softness, lubricity, and drapability. It has good resistance to discoloration from heat, ageing, and ultraviolet light. Unlike many other cationic softeners, it does not reduce the absorbency of fabrics treated with it. SOFTENER D-25 imparts anti-static and antidusting properties as well as softness.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**SOFTENER GS-25:**

SOFTENER GS-25 is a 25% active, liquid, cold-water-dispersible, nonionic, glycerol monostearate-based textile softener.

Typical Properties:

Appearance: White slightly translucent, thin, pourable
liquid

Specific Gravity (25C): 1.00

Viscosity: 200 cps. Maximum

% Active: 25

pH: 5-6

Ionic Character: Nonionic

Applications:

SOFTENER GS-25 may be used as a general purpose textile softener to impart a soft, full hand with minimal effect on the shade of dyed fibers or optical brighteners and on the discoloration of whites. It is a thin, pourable liquid for easy handling from either bulk or drums. It is readily dispersible in water at any temperature from cold to hot. Being completely nonionic it is compatible with nonionic, anionic or cationic materials. It is highly resistant to rancidity, oxidation and discoloration.

SOFTENER 27-3:

SOFTENER 27-3 is a nonionic polyethylene emulsion designed for use in textile finishing to provide durable softness and lubricity. The polyethylene in SOFTENER 27-3 is of the medium to high density type. The product has been formulated to provide exceptional emulsion stability over a wide range of pH, temperature and mechanical shear conditions.

Typical Properties:

Appearance: Translucent fluid emulsion

Specific Gravity (25C): 0.990-1.000

Ionic Character: Nonionic

Solids Content: 25%

pH: 8.5-10.0

General Application:

SOFTENER 27-3 tends to improve the abrasion resistance and tear strength of both resin finished and non-resin finished goods by imparting lubricity. Improved high speed sewing properties are imparted to resin treated and/or sulfur dyed fabrics by SOFTENER 27-3. SOFTENER 27-3 is an excellent durable softener, yielding a silky hand to a broad range of fibers and fabrics. SOFTENER 27-3 is compatible with most finishing agents, including heavy metal salt catalysts. Baths containing SOFTENER 27-3 remain stable in commercial practice for eight hours or longer.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

SOFTENER 27-3C:

Micro Fine Particle Size Cationic Polyethylene Softener/
Lubricant

SOFTENER 27-3C is a unique, cationic polyethylene emulsion containing no other waxes or other adulterants.

Due to its extremely fine particle size and penetrating action, SOFTENER 27-3C provides a high degree of internal lubrication resulting in a significant reduction in fiber to fiber friction. Because of this unique property, napped goods have vastly superior coverage and it is possible to reduce the number of passes through the nappers. Velours bulk and shear exceptionally well after tumble drying.

SOFTENER 27-3C also reduces the color bleed and color transfer of poly/cotton fabrics dyed with disperse dyesuffs. It also reduces the mottled appearance caused by migration of these dyes during drying and curing. Nonionics exaggerate these effects.

Typical Properties:

Appearance: Clear fluid emulsion

pH: 5.5-6.0

Ionic Character: Cationic

Specific Gravity (25C): 1.000

Solubility: Easily dispersed in room temperature water

Advantages:

1. Ideal product for exhausting polyethylene on becks or jets prior to napping, shearing or finishing. May also be padded without tailing.
2. Much silkier hand than nonionic polyethylenes.
3. Reduces dusting or resin treated fabrics due to its film forming properties and abrasion improvement.
4. Improves crockfastness on sanded or flocked goods.
5. Improves sewability, reduces needle cutting, needle heat and prevents build-up on needles.

SOFTENER 2945:

SOFTENER 2945 is an emulsion of silicone fluids containing some reactive groups which is useful as a textile lubricant and softener.

Typical Properties:

Appearance: Milky-white, fluid emulsion

Activity: 24%

Specific Gravity: 1.00

Ionic Character: Nonionic

Application:

SOFTENER 2945 is a silicone-based softener or lubricant which is useful in fabric finishing to give softer hand, higher tear strength and better sewing properties. It may be used on all types of fibers.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**SOFTENER 900C:**

Cationic Softening, Lubricating and Napping Agent for All Fibers

SOFTENER 900C is a fine particle size colloidal cationic emulsion that produces a silky smooth handle to knitting yarn and circular or warp knit fabrics of natural or synthetic fibers and their blends.

In addition, SOFTENER 900C imparts excellent fiber to metal lubricity that is necessary for efficient napping, shearing or sanding, as well as for minimizing needle cutting and improving sewability.

SOFTENER 900C has good antistat properties and thereby reduces static build up on in-plant processing equipment.

Advantages:

1. Resistant to yellowing with heat. Good for resin finishing cotton and poly/cotton white fabrics.
2. Improves the extensibility and recoverability of all knitted constructions, especially ribs.
3. Imparts a cashmere-type hand to acrylics or tri-acetates and their blends with cotton, nylon or polyester.
4. Internally lubricates cellulosics and synthetics so they nap easily. Looped constructions such as velvets and velours bulk thoroughly and shear evenly.
5. Improves bursting strength and both flex and flat abrasion of resin treated fabrics.
6. May be effectively applied by either pad, exhaust or spray methods.
7. Cold water dispersible. Fluid and easy to handle.
8. Good money value since low concentrations are extremely effective.
9. Improves the compactibility of knits on compressive shrinkage machines.
10. Minimizes color bleed, transfer and migration of disperse dyes.
11. Reduces needle heat, prevents needle build up and minimizes needle cutting.
12. Low concentrations applied in the last rinse after dyeing improves stretchability and softness without reducing fabric absorbency and thereby effecting the percent pick-up of subsequent finish applications.

Typical Properties:

Appearance: Semitranslucent fluid

Color: Off-white

pH: 5.5

Ionic Character: Cationic

Density: 8.3 pounds per gallon

Solubility: Easily dispersed in room temperature water.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

STABILIZER DR-9:

STABILIZER DR-9 is a highly effective organic, non-silicate stabilizer for textile bleaching baths containing hydrogen peroxide. In addition to its stabilizing action it has high sequestering capacity for heavy metal ions and prevents catalytic damage. It aids in keeping calcium and magnesium salts from depositing on fabrics and equipment and increases the absorbency of bleached fabrics. STABILIZER DR-9 is especially effective in rapid bleach systems where it is the only stabilizer needed. In continuous bleaching with long dwell times improved whiteness may be obtained by incorporating small amounts of silicate in the bleach bath. STABILIZER DR-9 contains no surfactants thus allowing complete flexibility in the selection of the surfactant desired for each bleach application. It does not contribute to foam formation. It is stable and compatible with all commonly used bleach bath additives.

Typical Properties:

Appearance: Clear, bright yellow liquid
pH: 4.5-5.0
Specific Gravity (25C): 1.092
Weight per gallon: 9.1 pounds

Application:

STABILIZER DR-9 may be used to stabilize peroxide bleach baths for cellulosic fibers alone or in blends, in soft or hard water, in hot or cold bleach procedures, and on yarns or white or yarn-dyed fabrics.

STABILIZER 161:

STABILIZER 161 is a blend of nonionic surfactants designed for use as a dispersant in naphthol dyeing. It acts as a dispersing agent for bases during diazotization and prevents deposition of tars and loose pigment during the coupling reaction.

Typical Properties:

Active Concentration: 35%
Specific Gravity, 25C: 1.04-1.05
Color APHA: 50

Applications:

For naphthol dyeing, STABILIZER 161 is used in a concentration equal to that of the base in diazotizations. The product is used in a concentration of 2.0g/l in azoic coupling reactions.

STABILIZER 161 acts as an effective dispersing agent for the base during diazotization and for the azoic pigment formed during the naphthol-base coupling reaction. The use of this product prevents deposition of loose pigment and tar onto the material which is being dyed.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):**SULFOX BH:**

SULFOX BH is a unique ecologically acceptable and non-toxic formulation of efficient oxidizing agents for use in continuous or batch dyeing processes involving sulfur or vat dyes. Even the difficult sulfur red-brown shades are oxidized fully and rapidly by the use of SULFOX BH. This new oxidizing agent may be considered to be an economical, non-polluting replacement for the conventional oxidants now used commercially.

Typical Properties:

Chemical Nature: Balanced blend of powerful oxidizing and adjuvant agents

Appearance: Clear, colorless to pale yellow aqueous solution

pH: 10.0-11.0

Specific Gravity: 1.12-1.13

Mode of Action:

SULFOX BH is activated by acid (typically 84% acetic acid) and heat to form powerful, synergetically active oxidizing species which rapidly convert the leuco (reduced) sulfur or vat dye to the stable keto (oxidized) form.

UNIBEC BDA:

UNIBEC BDA is a polymeric beck dyeing auxiliary which promotes hydrodynamic lubricity during dyeing of all classes of fibres with all classes of dyestuffs.

Typical Properties:

Appearance: Clear to opalescent, liquid

Solubility: Completely soluble in water.

Insoluble in organic solvents.

Ionic Character: Primarily nonionic, partially anionic

pH: 5.5-6.5

Specific Gravity: 1.022

Viscosity (Cps @ 25C): 1550-2300

Thermal Stability: Greater than 270F

General Application:

The use of UNIBEC BDA either alone or in combination with the usual fiber lubricants will tend to:

1. Protect the fiber by reducing fabric-to-fabric and fabric-to-metal surface friction
2. Cushion the fabric as it passes over the beck reels
3. Promote ballooning
4. Increase the adhesion of the beck bath to the fabric surface as the fabric is pulled by the reels out of the bath during dyeing.
5. Promote the dispersion and uniformity of distribution over the fabric surface of all subsequently added chemicals and dyestuffs.
6. Assist in the removal of loose, unfixed dye
7. Assist in general scouring processes.

DAN RIVER INC.: Textile Finishing Chemicals(Continued):

WETTER OS-75:

WETTER OS-75 is a pure, 75% active solution of sodium di (2-ethylhexyl) sulfosuccinate. It is one of the most powerful wetting agents known and is useful wherever rapid, uniform penetration by aqueous solutions is required.

Typical Properties:

Appearance: Clear, colorless, slightly viscous liquid
% Active: 75.0%
% Solids: 75.1%
pH (1%): 7.1
Acid Number: 0.25
Gel Point: Below 25F.
Solubility: Dissolves with agitation in warm water.
Ionic Nature: Anionic
Weight per Gallon: 9.0 lbs.

Applications:

WETTER OS-75 has extremely rapid wetting properties and is useful wherever rapid wetting by aqueous solutions is needed. For most uses concentrations of from 0.05 to 0.1% active solids in the solution are sufficient to achieve the desired wetting properties.

In textiles WETTER OS-75 may be used in desizing, scouring, bleaching, dyeing, and printing wherever rapid wetting is needed and high alkalinity is not present.

WETTER OS-75 is widely used as a raw material by compounders to impart wetting properties to numerous products.

WETOUT BP:

WETOUT BP is a very effective wetting agent with good detergent action recommended for use in yarn dyeing (beams and packages).

Typical Properties:

Appearance: Clear yellow liquid
Specific Gravity: 1.000-1.020
pH: 9.5-10.5

General Application:

The recommended use concentration of WETOUT BP is 3-5 grams per liter in the wetting out bath for beams and packages. It is compatible with the dyestuffs and dye auxiliaries normally to the wetout bath, if desired. WETOUT BP exhibits good rewetting properties.

DEEZEE CHEMICAL INC.: Product List:**Antistats:****ZEESTAT C:**

Cationic antistat for synthetic fibers, semi-durable.

ZEESTAT CA:

Cationic antistat for overspray systems.

ZEESTAT NC:

Nonionic antistat for nylon and polyesters.

Carriers:**ZEECARRIER AB:**

Low odor atmospheric dye carrier for high energy dyes where ventilation is poor or air pollution is strictly controlled.

ZEECARRIER KA:

Low odor, dye carrier for kanecaron and basic dyeable polyesters with leveler built in.

ZEECARRIER LO:

Low odor, atmospheric and high temperature carrier with best migration and yield at low use levels.

ZEECARRIER PT:

Low odor, one-bath scour and dye carrier for jets, beams, and package dyeing. Use levels 1 to 2%.

Clearing Agents:**ZEEANTIMIGRANT:**

Stops bleeding of dyes prior to after treatment, especially useful on cotton, rayon, viscose and blends.

ZEECLEAN #1:

After soaping agent for reactives, naphthols, etc.

ZEELITE TD:

Odorless reduction clearing agent--use 1/5 vs. hydrosulphite; safe and non-combustible.

DEEZEE CHEMICAL INC.: Product List(Continued):

Defoamers:

ZEEDEFOAM 100:

Stable, non-spotting silicone defoamer for atmospheric dyeing.

ZEEDEFOAM C:

Superior silicone defoamer, does not break down at prolonged high temperatures. Does not spot, very effective in all applications.

ZEEDEFOAM NS:

Non-silicone defoamer for all applications.

Dispersing Agents:

ZEESPERSE #2:

Dispersing agent for disperse dyes and leveling agent for disperse dyes on nylon.

ZEESPERSE 40:

Non-foaming dispersing agent for disperse dyes and leveling agent for nylon and polyester.

ZEESPERSE DS:

Economical dispersant for disperse dyes. Prevents dye agglomeration, keeps machine clean.

Emulsifiers:

ZEE-EMUL 35:

Low foam, all purpose emulsifier for carriers; enhances carrier performance.

ZEE-EMUL 50:

Emulsifier for carrier base, promotes migration without inhibiting yield--lubricates.

Fixatives:

ZEEFIX #1:

Economical direct dye fixative. Does not influence shade or lightfastness; compatible with resins and most finishes. Applied by exhaust or pad-on.

DEEZEE CHEMICAL INC.: Product List(Continued):**Leveling Agents:****ZEECOMPATIBALIZER:**

Antiprecipitant; leveling agent for one-bath cationic/anionic dyestuff combinations.

ZEELEV #2:

For acrylics, gives best migration and improves bulking. Biodegradable.

ZEELEV 2NE:

Jet dye low foam acrylic leveler. Use 1-2% for trouble free dyeing.

ZEELEV A1:

For acrylics and modacrylics; slows down rate of strike without "blocking" effect; economical.

ZEELEV AFM:

Highly effective acrylic leveling agent for difficult fibers.

ZEELEV CA:

Compatibilizer, leveling agent for dispersed/basic/acid dyeable acrylics and blends, with superior yield and brightness.

ZEELEV JPE:

For polyester; for jet dyeing, excellent for repair work. Economical, can be used without carrier or dispersant. Use level 1 to 2%.

ZEELEV KN-100:

Leveling agent for direct and reactive dyes; does not inhibit exhaust.

ZEELEV JKN:

Low foam version of ZEELEV KN-100; Garment dye specialty.

ZEELEV LN:

Leveling agent for wool/nylon blends. Contributes to even exhaust.

ZEELEV ME:

For disperse dyes; suitable for controlling migration in atmospheric and high temperature dyeing on nylon, polyester and acrylics.

ZEELEV MG:

Leveling agent for modified basic dyes, does not inhibit exhaust, allows rapid dyeing.

DEEZEE CHEMICAL INC.: Product List(Continued):

Leveling Agents(Continued):

ZEELEV N:

Leveling agent for nylons 6 and 66. Allow complete dye exhaustion even at slightly higher pH, produces maximum brightness with turquoise blue. Minimizes barre.

ZEELEV RDA:

For acrylics; particularly the redyeing of unlevel batches; replaces stripping procedures, breaks down blocked dyesites.

ZEEONCAR BI-LO:

High temperature polyester leveling agent with fiber opening characteristics, high salt stability for polyester blends. Use level 0.5 to 1.0%.

Lubricants:

ZEELUBE 34S:

Modified silicone blend, antistat/lubricant on acrylics and blends for carding and sliverknitting operations. Produces highest sheen and crimp free fiber with natural furlike hand.

ZEELUBE 60S:

Release agent and specialty nonionic lubricant semi-durable antistat promotes superior softness on synthetics and blends. Non-yellowing compatible with anionic and cationic systems.

ZEELUBE APS:

Silicone lubricant, high cohesion for fun-fur fibers and blends.

ZEELUBE CA:

Antistatic lubricant for all fibers and blends in carding and sliverknit operations.

ZEELUBE ET:

Economical. All purpose lubricant for all fibers, use level of 0.5% gives excellent performance.

ZEELUBE JET:

Non-yellowing jet lubricant; does not inhibit exhaust or migration; can be applied in dyebath or by pad-on.

ZEELUBE MR:

All purposes humectant lubricant. Effective in carding and sliverknit operations on all types of fibers.

DEEZEE CHEMICAL INC.: Product List(Continued):**Lubricants(Continued):****ZEELUBE NI:**

Nonionic antistat lubricant compatible with most finishes. Especially effective on polyester/cotton.

ZEELUBE NV:

Non-yellowing, nonionic finish lube, gives excellent hand and sewability features.

ZEELUBE RX:

Reactive silicone type softener for polyester knits and blends. Prevents bleeding. Promotes silky hand.

Napping Agents:**ZEENAP KS:**

Specialty silicone napping agent; non-yellowing. Hydroscopic properties improves napping of cotton and cotton blends considerably.

ZEENAP NV:

Versatile nonionic napping agent; non-yellowing; reduces fiber to metal friction; minimizes fabric tearing.

ZEENAP RX:

Reactive silicone napping agent; for cotton and polyester/cotton blends; gives a soft hand; naps in one pass.

Scouring and Wetting Agents:**ZEECLEAN #1:**

Aftercleaning agent for polyesters, replaces hydro; trimer remover, outstanding machine cleaner.

ZEECLEAN DSB, DSB-200:

One bath desize-scour-bleach for cotton and blends produces superior whites and softer hand in conjunction with STABILIZER DZ.

ZEESCOUR 50:

Desizing agent; all purpose biodegradable scouring agent for continuous and batch pre-/after scouring. Effective at wide pH range.

ZEESCOUR 555:

Highly alkaline stable scouring agent for kier-boiling; bleaching and general prescouring, afterscour for reactive.

DEEZEE CHEMICAL INC.: Product List(Continued):

Scouring and Wetting Agents(Continued):

ZEESCOUR M:

Garment-dye detergent; all-purpose scouring and wetting agent. Stable in bleaching; stable to high pH and high salt concentrations.

ZEESCOUR NFS:

Very low foam; non-ionic scour and oil solubilizer.

ZEESCOUR TR:

Solvent based scouring agent; removes trimers; graphites.

ZEESCOUR XL:

All purpose scouring agent, effective to pH 14.0; rapid wet out on cotton and blends; rinses clear.

ZEESOLVE PW:

Multifunctional solvent scour widely used in hosiery. Highly effective in low temperature wool scouring to prevent shrinkage and felting.

ZEEWET K:

Kuester-dye-wetting agent, dye dispersant with moderate foam for acid dyes on nylon carpet.

Sequestrants:

STABILIZER 88, DZ:

Organic stabilizers for hydrogen peroxide bleaching. Promotes better whites and gives softer hand verses sodium silicate systems.

ZEEQUEST 100, 500:

EDTA sequestrants.

ZEEQUEST 200:

Organic sequestrants for pH 2.0 to pH 14.0.

ZEEQUEST 400, 401:

Organic sequestrants stable in high alkaline medium. Excellent chelation of iron and other heavy metals.

DEEZEE CHEMICAL INC.: Product List(Continued):**Softeners:****ZEESOFT CP:**

Nonionic polyethylene based softener for pad-on applications on polyester blends. Compatible with resin systems and other finishes.

ZEESOFT K, 15:

Liquid highly effective 16% active cationic all purpose softener. Non-yellowing, applied by exhaust or pad-on; excellent for napping.

ZEESOFT N:

Non-yellowing softener. Effective last rinse or pad-on softener; prevents crackmarks, nonionic.

ZEESOFT NV:

Liquid non-yellowing softener for natural fibers. Especially effective on wool and cotton.

ZEESOFT R:

Garment-dye softener. All-purpose, gives very soft hand. Cationic, no acid required.

ZEESOFT TS:

Liquid towel softener. Promotes high absorption; non-yellowing. May be applied by pad or exhaust method.

ZEESOFT XL:

New cationic softener with outstanding slick hand. Effective on all natural and synthetic fibers.

DESOTO, INC.: Textile Finishing Chemicals:

Surfatropes:

PETRO ULF:

Alkyl Naphthalene Sodium Sulfonate
% Active: 50
Form: Liquid
Wetting for Jet-Beck Dyeing, Bottle Washing

Octyl Phenol Ethoxylates:

DESONIC S-405:

% Active: 70
n: 40
Cloud Point, F: 165-176 10% NaCl
Form: Liquid
Co-Emulsifier for Vinyl & Acrylic Polymerization, Dye Assistant

Nonyl Phenol Ethoxylates:

DESONIC 9N:

% Active: 100
n: 9
Cloud Point, F: 127-133
Form: Liquid
Detergent, Wetting, Emulsifier, Textile, Paper, Metal Cleaning

DESONIC 10N:

% Active: 100
n: 10
Cloud Point, F: 140-149
Form: Liquid
Detergent, Wetting, Emulsifier, Textile, Paper, Metal Cleaning

DESONIC 11N:

% Active: 100
n: 11
Cloud Point, F: 158-162
Form: Liquid
Detergent, Wetting, Emulsifier, Textile, Paper, Metal Cleaning

Decyl Alcohol Ethoxylates:

DESONIC DA-4:

% Active: 100
n: 4
Form: Liquid
Rapid wetter/re wetter with low foaming properties for textile applications. Water dispersible.

DESONIC DA-6:

% Active: 100
n: 6
Cloud Point, F: 115-120
Form: Liquid
Effective wetting agent built in scour systems. Water Soluble.

DESOTO, INC.: Textile Finishing Chemicals(Continued):**Tridecyl Alcohol Ethoxylates:****DESONIC 9T:**

% Active: 100

n: 9

Cloud Point, F: 154-170

Form: Liquid: Surfactant for Light and Heavy Duty Detergents.

Used in Textiles for Leveling and Scouring.

DESONIC 12T:

% Active: 100

n: 12

Cloud Point, F: 187-201

Form: Liquid

Surfactant for Light and Heavy Duty Detergents. Leveling and Scouring.

DESONIC 15T:

% Active: 100

n: 15

Cloud Point: 156-167 10% NaCl

Form: Liquid

Application: Surfactant for Light and Heavy Duty Detergents at High Temperatures. Leveling and Scouring Agent.

Castor Oil Ethoxylates:**DESONIC 30C:**

% Active: 100

n: 30

Form: Liquid

DESONIC 36C:

% Active: 100

n: 36

Cloud Point, F: 122-140

Form: Liquid

DESONIC 40C:

% Active: 100

n: 40

Cloud Point, F: 173-179

Form: Liquid

DESONIC 54C:

% Active: 100

n: 54

Cloud Point, F: 136-142 10% NaCl

Emulsifiers, Lubricants, Dye Levelors, Antistatic Agents, and Dispersants for Textiles, Emulsifying Agents for Polyurethane Foams; Softening and Rewetting Agents for Wet Strength Paper.

DESOTO, INC.: Textile Finishing Chemicals(Continued):

Phosphate Esters:

DESOPHOS 9NP:

% Active: 100

Form: Liquid

Application: Dedusting agent for dry cleaning detergent, alkaline powders, water-repellent fabric finishes. Used in emulsion polymerization for formation of polyvinyl acetate and acrylic films.

DESOPHOS 6MPNa:

% Active: 88

Form: Liquid

Application: Imparts hard-surface detergency, retardation of corrosion, and moderate foaming when used in detergent concentrations. Useful dry cleaning detergent. Compatible with electrolyte solutions. Antistat for textiles.

DESOPHOS 4CP:

% Active: 95

Form: Liquid

Application: Used as a softener and antistatic agent in textile finishing. Useful in lubricants for filament yarns, synthetic fibers, and wool. May be used to emulsify cosmetic oils and creams, and for the polymerization of latices.

DESOPHOS 3DP:

% Active: 100

Form: Liquid

Application: Used as a textile wetting agent, and in alkaline scouring operations. Used in dry cleaning detergents as potassium or sodium salts. Good antistat properties.

DESOPHOS 6DP:

% Active: 100

Form: Liquid

Application: Higher electrolyte tolerance than DESOPHOS 3DP. May be used as a dry cleaning detergent, penetrant, and antistatic agent.

DESOPHOS 7DP:

% Active: 100

Form: Liquid

Application: Alkali-stable emulsifier, detergent, wetting agent and dispersant. Used as a rewetting agent in the pretreatment of resin-finished cotton and in the set-processing of cellulosic and synthetic fiber textiles.

DESOPHOS 7OPNa:

% Active: 98

Form: Liquid

Application: Used as a dispersible surfactant in the emulsification of mineral oils. A softener and antistatic agent for textiles. Soluble in aromatic solvents. Used for formulating lubricants for synthetic and wool fibers.

DESOTO, INC.: Textile Finishing Chemicals(Continued):**Esters & Ethoxylated Esters:****DESOTAN SMO:**

% Active: 100

Form: Liquid

DESOTAN SMT:

% Active: 100

Form: Liquid

Application: Lipophilic emulsifiers, fiber lubricants and softeners. Insoluble in water, but soluble in oils and organic solvents.

Ethoxylated Amines:**DESOMEEN TA-2:**

% Active: 99

n: 2

Form: Paste

DESOMEEN TA-15:

% Active: 100

n: 15

Cloud Point, F: 172-179

Form: Liquid

DESOMEEN TA-20:

% Active: 100

n: 20

Cloud Point, F: 179-181 10% NaCl

Form: Liquid

Emulsifiers and dispersants. Used as textile scouring agents, textile dyeing assistants, desizing assistants, softening agents, antistatic agents, etc.

Miscellaneous Products:**PETRO Dispersant 98:**

Alkyl Naphthalene Sulfonate, Sodium Salt

Dispersant for dyestuffs

PETRO Dispersant 425:

Sulfonated Naphthalene-Formaldehyde Condensate, Sodium Salt

Dispersant for dyestuffs pigments.

DIXO CO., INC.: Fabric Care Products:

PHASE II GOLDEN DETERGENT HONEY:

A drycleaning detergent that provides effective soil removal at low moisture levels. PHASE II HONEY also contains anti-lint and anti-redeposition additives. Because of its high detergent activity, shorter cleaning cycles are possible, which in turn save time and energy costs and help preserve garment life. Wool blends and fused garments benefit from the low moisture cycle.

CPA-ALPHA:

A concentrated chemical that can be used by itself as a batch detergent or as a supplement to most charge detergents to make them clean better. With CPA-ALPHA you will get exceptional soil removal without pre-spotting and without changing the charge or moisture level. Difficult items such as rain-coats, wedding gowns, etc. are cleaned easily in such areas as necklines, hemlines and pockets by CPA-ALPHA.

DIXOFORM:

The volatile dry spotting fluid
Removes light smears (without re-cleaning)

* Pick-up Dirt	* Oil
* Grease	* Paint

Makes an excellent Dry Prespotter combined with DIXOTEX

SPOTTER M:

On the wet side
The Miracle Spotter
* Neutral Lube * Leveling Agent
* Prespotter * Wetting Agent
* Spray Spotter

BROWNEX:

Acid-Side Brown/Tan Stain Remover

BROWNEX is a ready-to-use liquid for the removal of many of the so-called acid side stains.

DIJEX:

Blood, protein & food stain remover

PLY-O-FAB:

Restores brittle leather-like garments to original softness!

REPELEX:

Dry side water repellent with SOFT-A-SIL

Improves Water Repellent Process!

Gives all water-repelled garments that "Soft as Silk" feeling of comfort.

DIXOTEX:

Wet or Dry Spotting Base

FASHION STYLE Fabric Finish:

A super concentrated dry sizing with a built-in fabric deodorant

E-Z-DUZ-IT!:

All purpose spotter and the spots gone!!

* E-Z-DUZ-IT is effective on most stains

* Use E-Z-DUZ-IT to remove stains from finished garments

DOCK RESINS CORP.: Textile Finishing Chemicals:**DORESCO AKW6-8:**

DORESCO AKW6-8 is an ammoniacal water solution of a soya oil alkyd resin. The alkyd is not completely esterified so that it is suspendible in alkaline water solution; however, it is sufficiently esterified so that it will cure with melamine resin and other cross linking resins. This resin solution should be stirred before use to achieve uniformity.

A prime use for DORESCO AKW6-8 is for pigment wetting in pigment emulsion printing of textiles. It is particularly effective with black pigments.

Typical Physical Constants:

Solids: 68+-2%
Viscosity(Gardner): 24-6
Acid No. (before neutralization): 85-100
Color (Gardner): 8-9
Appearance: Non-Uniform
pH: 7.5-8.5

DORESCO M3-11M:**DORESCO M3-11 Concentrate:**

DORESCO M3-11 concentrate and DORESCO M3-11 are acid terminated polyesters. When made alkaline, DORESCO M3-11M becomes infinitely water soluble. A variety of volatile amines may be used to neutralize the concentrate. Generally, ammonia is preferred. The difference between the two products is that the DORESCO M3-11 has already been neutralized with ammonia and diluted somewhat with water.

A typical use for these materials is sizing rayon so that the fabric stiffens and becomes a ribbon.

Typical Physical Constants:

Solids: 70.0+-2%
Solvent: Isopropanol

Solids: 40.0+-1%
Solvent: Isopropanol
Water
Amine: Ammonia
pH: >8

DOCK RESINS CORP.: Textile Finishing Chemicals(Continued):

DORESCO M7-49:

DORESCO M7-49 Concentrate:

DORESCO M7-49 and DORESCO M7-49 Concentrate are Castor Oil alkyds. They are soluble and infinitely dilutable in alkali solution. DORESCO M7-49 has already been neutralized with ammonia and triethanol amine and diluted with water.

These materials are effective for textile sizing imparting soft and full hand to rayon interliners. They also have uses in conjunction with hexamethoxymethyl melamine as a water soluble baking enamel.

Typical Physical Constants:

M7-49:

Solids: 60+-2%

Solvent: Isopropanol
Water

Amine: Ammonia,
Triethanol Amine

M7-49 Concentrate:

Solids: 70+-2%

Solvent: Isopropanol

pH: >8

DORESCO PMP7-1:

DORESCO PMP7-1 is a primary polymeric plasticizer recommended for polyvinyl chloride processors, solution grade vinyls, and lacquers. It resists perchloroethylene and produces drycleanable vinyl sheeting. DORESCO PMP7-1 fuses dispersion grade vinyls and can be used to formulate organosols and plastisols. Sheeting made with DORESCO PMP7-1 can be fused to foam. Plasticizer migration will be minimal so that the sealed foam is fabricated into sports wear, gym mats, etc. Since DORESCO PMP7-1 is a chemical plasticizer with good compatibility it is suitable as the sole plasticizer.

DORESCO PMP7-1 is not a general purpose plasticizer because of its cost and is recommended where its specific properties are required.

Typical physical constants and performance data for DORESCO PMP7-1 and of vinyl sheeting made with it are listed below:

Viscosity (Gardner): Z5

Acid No.: 1.1

Color: 2-3

SPI Volatility: .6%

1% Ivory Snow Extraction: 1.0%

Distilled Water Extraction: .6%

White Gasoline Extraction: 1.2%

Mineral Oil Extraction: .2%

Perchloroethylene Extraction: 1.1%

Lbs./Gal.: 9.5

DOVER CHEMICAL CORP.: Bromine Containing Flame Retardants:**DD-8207A:**

Color, Gardner: 1

Percent Bromine: 30

Percent Chlorine: 29

Viscosity, Poise/25C: 22

S.G./50C.: 1.42

Chemical Description: Bromo-Chlor. Paraffin

Low cost, highly efficient flame retardant with good color and color stability. Used to flame retard flexible and rigid polyurethane foam, textiles, carpet backing, PVC and adhesives.

DD-8208A:

Color, Gardner: 2

Percent Bromine: 26

Percent Chlorine: 32

Viscosity, Poise/25C: 15

S.G./50C.: 1.38

Percent Phosphorus: 1.2

Chemical Description: Bromo-Chlor. Paraffin w/Phos.

Highly efficient flame retardant for polyurethane foam and air filter adhesives.

DD-8307A:

Color, Gardner: 1

Percent Bromine: 24

Percent Chlorine: 23

Viscosity, Poise/25C.: 1.0

S.G./50C.: 1.37

Percent Phosphorus: 5

Chemical Description: Bromo-Chlor. Paraffin w/Phos.

Low viscosity, highly efficient flame retardant for polyurethane foam and RIM

DD-8426:

Color, Gardner: 1

Percent Bromine: 42

Viscosity, Poise/25C.: 0.15

S.G./50C.: 1.16

Chemical Description: Bromo-Alkane

Very low viscosity, good flame retardancy for high solids.

DOVER CHEMICAL CORP.: Bromine Containing Flame Retardants
(Continued):

DD-8410:

Color, Gardner: 3

Percent Bromine: 57

Viscosity, Poise/25C.: 0.5

S.G./50 C.: 1.52

Chemical Description: Aliphatic & Aromatic Bromine

Low viscosity, excellent non-scorching flame retardant for flexible foam.

DD-8133:

Color, Gardner: 1

Percent Bromine: 41

Percent Chlorine: 35

Viscosity, Poise/25C.: Solid

S.G./50C.: 2.3

Softening Point: 130C.-300C.

Chemical Description: Aromatic Bromine Aliphatic Chlorine

Lower smoke and lower cost than brominated flame retardants, used to flame retard polypropylene, polyethylene, SBR, unsaturated polyesters and fabrics.

It is generally understood that a suitably flame retarded fabric should retain this property under conditions of wear, wash and weather. Furthermore, the flame retardant component should not effectively alter the fabric characteristics including hand, drape, adsorbency, strength and durability. In addition, this component should not adversely modify other chemicals designed to impart color, size, mildew resistance, water repellency and the like. Finally, the incorporation of a flame retardant treatment in the processing cycle of the fabric should not burden the user with excessive cost.

DOVER CHEMICAL CORP.: CHLOREZ Resin Grades:**CHLOREZ 700:**

Physical Form: White Powder
Color, Gardner 1933 Standard: <1
Chlorine Content % By Weight: 70
Specific Gravity, 25/25C: 1.6
Softening Point C: 95-110

CHLOREZ 700-S:

Physical Form: White Powder
Color, Gardner 1933 Standard: <1
Chlorine Content % By Weight: 70
Specific Gravity, 25/25C: 1.6
Softening Point C: 95-110

CHLOREZ 725-S:

Physical Form: White Powder
Color, Gardner 1933 Standard: <1
Chlorine Content % By Weight: 71
Specific Gravity, 25/25C: 1.6
Softening Point C: 120-140

CHLOREZ 760:

Physical Form: White Powder
Color, Gardner 1933 Standard: <1
Chlorine Content % By Weight: 74
Specific Gravity, 25/25C: 1.7
Softening Point C: 160

CHLOREZ grades are tasteless, odorless, 70% chlorinated paraffin resins especially soluble in aromatic and chlorinated solvents. They have limited or no solubility in lower alcohols, glycols, glycerins, and water.

CHLOREZ is compatible with most commonly used resins, rubbers, plasticizers, waxes, and drying oils. Because of their very high active halogen content and low cost, CHLOREZ products are finding wide usage as flame retardant additives in coatings, inks, plastics, foams, adhesives, paper and fabrics.

CHLOREZ 725-S has an improved stability over CHLOREZ 700 and a higher softening point.

CHLOREZ 760 is patent pending. Its high softening point, 160C min., is unique. CHLOREZ 760 is finding wide application in olefins, styrenes, adhesives, wire and cable and many other flame retardant areas.

DOVER CHEMICAL CORP.: Chlorinated Paraffins:

PAROIL 10:

Stable, lowest vis., high solubility
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % By Weight: 40
Specific Gravity: @ 50/25C: 1.060
Pounds Per Gallon: 8.9
Viscosity: SUS @ 210F: 33
Volatility, % Loss: 4 hrs @ 150C: 60
Stability: JQD Method, % HCl, 4 Hrs. @ 175C: 0.2
Flash Point F (Cleveland Open Cup): 155

CHLORO-FLO 40:

Stable, low vis., excellent solubility
Color, Typical, Gardner 1933 Std.: 2
Chlorine Content, % by Weight: 39
Specific Gravity: @ 50/25C: 1.085
Pound Per Gallon: 9.0
Viscosity: SUS @ 210F: 63
Volatility % Loss: 4 hrs @ 150C: 5.0
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >450

CHLORO-FLO 42:

Stable, low vis., excellent solubility
Color, Typical Gardner 1933 Std.: 2
Chlorine Content % by Weight: 40
Specific Gravity @ 50/25C: 1.100
Pounds Per Gallon: 9.3
Viscosity: SUS @ 210F: 90
Volatility, % Loss: 4 Hrs @ 150C: 2.0
Stability: JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >450

PAROIL 140:

Stable, low volatility, good solubility
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % by Weight: 42
Specific Gravity @ 50/25C: 1.150
Pounds per Gallon: 9.6
Viscosity: SUS @ 210F: 150
Volatility % Loss: 4 hrs. @ 150C: 1.5
Stability: JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >450

DOVER CHEMICAL CORP.: Chlorinated Paraffins (Continued):

PAROIL 45:

Good color, low vis. ex stability
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % By Weight: 45
Specific Gravity @ 50/25C: 1.16
Pounds Per Gallon: 9.6
Viscosity: SUS @ 210F: 50
Volatility, % Loss: 4 hrs. @ 150C: 7.0
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.2
Flash Point F (Cleveland Open Cup): >400

PAROIL 142-A:

Stable, med. vis., good solubility
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % by Weight: 45
Specific Gravity: @ 50C/25C: 1.195
Pounds Per Gallon: 10.0
Viscosity: SUS @ 210F: 200
Volatility, % Loss: 4 hrs. @ 150C: 1.5
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >450

PAROIL 145-A:

Stable, med. vis., good solubility
Color, Typical, Gardner 1933 Std.: 3
Chlorine Content % by Weight: 46
Specific Gravity: @ 50/25C: 1.200
Pounds Per Gallon: 10.0
Viscosity: SUS @ 210F: 230
Volatility, % Loss: 4 hrs @ 150C: 1.5
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.4
Flash Point F: (Cleveland Open Cup): >450

PAROIL 50:

Low vis., high chlorine
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % by Weight: 50
Specific Gravity: @ 50/25C: 1.25
Pounds Per Gallon: 10.3
Viscosity: SUS @ 210F: 40
Volatility, % Loss: 4 hrs @ 150C: 25.0
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >400

DOVER CHEMICAL CORP.: Chlorinated Paraffins(Continued):

PAROIL 152:

Very stable, very low volatility, good solubility
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % by Weight: 51
Specific Gravity: @ 50/25C: 1.250
Pounds Per Gallon: 10.3
Viscosity: SUS @ 210F: 70
Volatility, % Loss: 4 Hrs. @ 150C: 3.5
Stability: JQD Method, % HCl, 4 Hrs. @ 175C: 0.2
Flash Point F (Cleveland Open Cup): >450

PAROIL 150-A:

Stable, very high vis., med. solubility
Color, Typical, Gardner 1933 Std: 1
Chlorine Content % by Weight: 50
Specific Gravity: @ 50/25C: 1.250
Pounds Per Gallon: 10.3
Viscosity: SUS @ 210F: 450
Volatility, % Loss: 4 Hrs. @ 150C: 1.5
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.3
Flash Point F (Cleveland Open Cup): >450

PAROIL 150LVA:

Med. to high vis.
Color, Typical, Gardner 1933 Std.: 2
Chlorine Content % By Weight: 48
Specific Gravity: @ 50/25C: 1.220
Pounds Per Gallon: 10.3
Viscosity: SUS @ 210F: 250
Volatility, % Loss: 4 Hrs. @ 150C: 1.4
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

PAROIL 1057:

Low vis., ex. solubility
Color, Typical Gardner 1933 Std.: 1
Chlorine Content % by Weight: 57
Specific Gravity: @ 50/25C: 1.300
Pounds Per Gallon: 10.9
Viscosity: SUS @ 210F: 55
Volatility, % Loss: 4 hrs @ 150C: 18
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

DOVER CHEMICAL CORP.: Chlorinated Paraffins(Continued):

PAROIL 1061:

High chlorine, ex. stability
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % By Weight: 61 min
Specific Gravity: @ 50/25C: 1.370
Pounds per Gallon: 11.4
Viscosity: SUS @ 210F: 72
Volatility, % Loss: 4 Hrs. @ 150C: 11
Stability: JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

PAROIL 57-61:

Blend of 1057 and 1061
Color, Typical, Gardner, 1933 Std.: 1
Chlorine Content % by Weight: 59
Specific Gravity: @ 50/25C: 1.335
Pounds Per Gallon: 11.1
Viscosity: SUS @ 210F: 63
Volatility, % Loss: 4 hrs. @ 150C: 14
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point, F (Cleveland Open Cup): >450

PAROIL 1650:

Med. vis., ex. stability, ex. solubility
Color, Typical, Gardner 1933 Std.: 1
Chlorine Content % by Weight: 62
Specific Gravity: @ 50/25C: 1.390
Pounds Per Gallon: 11.8
Viscosity: SUS @ 210F: 90
Volatility, % Loss: 4 hrs @ 150C: 6.0
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

PAROIL 170T:

High chlorine, lower vis. than LV
Color, Typical, Gardner 1933 Std.: 3
Chlorine Content % by Weight: 70
Specific Gravity: @ 50/25C: 1.510
Pounds per Gallon: 12.5
Viscosity: SUS @ 210F: 75
Volatility, % Loss: 4 hrs. @ 150C: 15
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.4
Flash Point F (Cleveland Open Cup): >450

DOVER CHEMICAL CORP.: Chlorinated Paraffins(Continued):

PAROIL * 170LV:

High vis., high chlorine
Color, Typical, Gardner 1933 Std.: 2
Chlorine Content % By Weight: 67
Specific Gravity: @ 50/25C: 1.500
Pounds per Gallon: 12.5
Viscosity: SUS @ 210F: 12.5
Volatility, % Loss: 4 hrs. @ 150C: 5.2
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

PAROIL * 170HV:

Very high vis., high chlorine
Color, Typical, Gardner, 1933 Std.: 2
Chlorine Content % by Weight: 70
Specific Gravity: @ 50/25C: 1.520
Pounds Per Gallon: 12.7
Viscosity: SUS @ 210F: 530
Volatility, % Loss: 4 hrs @ 150C: 1.0
Stability, JQD Method, % HCl, 4 Hrs. @ 175C: 0.25
Flash Point F (Cleveland Open Cup): >450

* Also available in Solvent Blends

- * Special emulsifiable, water dispersed and water emulsified grades also available
- * Special inhibited and stabilized grades also available
- * PAROIL 57-61 especially good for polysulfide and polyurethane sealants

DOVER CHEMICAL CORP.: REZ-O-SPERSE Grades:**REZ-O-SPERSE A-1:**

Physical Form: Water Dispersion of CHLOREZ 700
Color: Cream White
Solids, % By Weight: 65
Chlorine Content % By Weight of Disp. or Emul.: 45
Specific Gravity of Solids: 1.600
Wet Lbs/Gallon: 11.0
Viscosity: Poise: 48
NS Hegman Units: 4
pH: 7-1/2

REZ-O-SPERSE 3:

Water Emulsion of PAROIL 170HV
Color: Cream White
Solids, % By Weight: 66.5
Chlorine Content % By Weight of Disp. or Emul.: 45
Specific Gravity of Solids: 1.540
Wet Lbs/Gallon: 11.3
Viscosity: Poise: 150-300
pH: 7

Both REZ-O-SPERSE A-1 and REZ-O-SPERSE 3 typically contain 45% available chlorine for maximum flame retardant efficiency.

Because of their non-ionic base they find application in both cationic and anionic emulsion systems.

In addition to their flame retardant contribution they improve adhesion, impart chemical and water resistance and allow the user to formulate aqueous systems rather than solvent systems.

REZ-O-SPERSE A-1 is recommended if increased hardness is required. Use REZ-O-SPERSE 3 for plasticizing and tackifying.

Application areas include adhesives, rubber coatings, inks, carpet backings, paper and fabric coatings.

DOW CORNING CORP.: Dow Corning Fabric Finishes:

Silicone Softener for Knit and Woven Fabrics:

Type: Silicone emulsion; silicone polymer system

Products: DOW CORNING 1111 Emulsion; DOW CORNING T4-0149 crosslinker; DOW CORNING 182A or 164 catalyst

Physical Form: Water dilutable liquids

Special Properties: Silicone emulsion can be used alone in pad operations or as a top softener; emulsion system with separate emulsion and crosslinker allows varying hand and other properties by changing the mixing ratios.

Primary Uses: Silicone emulsion for synthetic knits in a pad operation or as a top softener; emulsion polymer system for durable-press woven fabrics to improve hand and other characteristics.

Description:

DOW CORNING 1111 Emulsion is a stable emulsion of high-viscosity silicone polymer that can be used alone or as part of a system in combination with DOW CORNING T4-0149 crosslinker and DOW CORNING 182A or 164 catalysts. It is designed to have good compatibility with a wide variety of conventional finishing resins, hand builders, weighters or similar products. Its stability allows use in finishing processes where high speeds with attendant high shear is expected.

Properly applied, this non-yellowing silicone hand modifier will give a full, soft, and luxurious hand which can be varied from soft, dry, and firm to soft and silky. The hand will not be thin and papery, but full and vibrant. High tear strengths with improved abrasion resistance and sewability can be obtained on most fabrics.

Benefits/Advantages:

When used alone on 100% synthetic knits, woven, textured woven, or synthetic/cellulosic fabric in a pad operation or as a top softener, the silicone emulsion polymer:

- * Provides full, rich vibrant hand with body and softness
- * Gives increased tear and flex abrasion resistance
- * Allows fabrics to be cut and sewn more easily
- * Eliminates the need for organic softeners

When used on polyester/cellulosic fabrics in conjunction with durable press resins, the silicone emulsion polymer system:

- * Allows resin reduction of 20 to 50 percent thereby improving performance of durable press fabrics at equal or less cost
- * Increases tear and flex abrasion resistance
- * Allows fabrics to be cut and sewn more easily
- * Provides full, rich vibrant hand that can be varied from firm and dry to very soft
- * Eliminates the need for organic softeners

DOW CORNING CORP.: Dow Corning Fabric Finishes(Continued):**Typical Properties:****DOW CORNING 1111 Emulsion:**

Color: Milk white

Chemical Nature: Reactive polysiloxane

Active Materials, percent: 35

Flash Point, Cleveland open cup, degrees: None

DOW CORNING T4-0149 additive:

Color: Pale amber

Chemical Nature: Silane crosslinker

Active Materials, percent: 100

Flash Point, Cleveland open cup, degrees: 50F (10C)

DOW CORNING 182A catalyst:

Color: Milk white

Chemical Nature: Organotin salt

Active Materials, percent: 20

Flash Point, Cleveland open cup, degrees: None

DOW CORNING 164 catalyst:

Color: Milk white

Chemical Nature: Organotin salt

Active Materials, percent: 20

Flash Point, Cleveland open cup, degrees: None

How to Use:

DOW CORNING 1111 Emulsion when used as a system, can be applied with conventional textile padding equipment. For best results, the pad bath should give a pickup of about 0.5 to 1.0 percent silicone solids, based on the dry weight of the fabric. For hand modification only, less pickup is required.

DOW CORNING CORP.: DOW CORNING Fabric Finishes:

Silicone Softener/Resin Extender for Durable Press Fabrics:

Type: Silicone emulsion polymer system

Products: DOW CORNING 1111 Emulsion

DOW CORNING T4-0149 crosslinker

DOW CORNING 182A or 164 catalyst

Physical Form: Water-dilutable liquids

Special Properties: Modification of hand and other physical properties can be varied as needed by changing the ratio of silicone emulsion to the separate crosslinker

Primary Uses: Softener for durable-press fabrics;
extender for durable-press resins

Description:

DOW CORNING 1111 Emulsion is a stable emulsion of high-viscosity silicone polymer which is a versatile hand modifier and fortifier for a wide range of durable press finished fabrics. This includes shirt and dress weight fabrics, as well as sheetings and bottom weight fabrics. Used as part of a system with DOW CORNING T4-0149 crosslinker and a selected catalyst, DOW CORNING 1111 Emulsion gives a combination of desirable properties to cotton and cotton/synthetic blends which have not been previously obtainable.

The silicone polymer, crosslinker, and catalysts are separate, allowing wide latitude in the types of properties and hand modifications available with various levels of these materials.

Benefits/Advantages:

When used with glyoxal, carbamate, or other textile resins, the finish crosslinks to form a durable, flexible silicone elastomer that:

- * Allows resin reduction of 20 to 50 percent thereby improving performance of durable press fabrics at equal or less cost
- * Provides good dimensional stability and flat appearance after washing
- * Improves flex abrasion, tear strength, and strength because of reduced resin levels
- * Allows fabrics to be cut and sewn more easily
- * Eliminates the need for organic softeners
- * Reduces fabric harshness while adding body and softness

Uses:

DOW CORNING 1111 Emulsion can be used as a hand modifier and fortifier for a wide range of durable press finished fabrics including shirt and dress weight fabrics, bottom weight fabrics, and sheetings.

DOW CORNING 1111 Emulsion: Reactive polysiloxane

DOW CORNING T4-0149 additive: Siland crosslinker

DOW CORNING 182A catalyst: Organotin salt

DOW CORNING 164 catalyst: Organotin salt

DOW CORNING CORP.: DOW CORNING FF-400 and DOW CORNING 193 Fiber Finish Additives:

Type: Silicone-ethylene oxide copolymers

Physical Form: Fluid

Special Properties: Effective at very low lubricant add-on levels; heat stability; static control

Primary Use: Finish ingredients for texturing and draw-twisting

Description:

DOW CORNING FF-400 and DOW CORNING 193 fiber finish additives are silicone-ethylene oxide copolymers that exhibit useful characteristics in the manufacture and processing of fibers and yarns. Some of these characteristics include lubricity, heat stability and static control.

DOW CORNING FF-400 and DOW CORNING 193 fiber finish additives are lubricants that have hydrophilic and silicone portions combined into a single molecule. This allows the lubricity of silicones, which are not usually water soluble, to be available from water systems, and to be removable with a water-based scour. DOW CORNING FF-400 fiber finish additive is water dispersible and DOW CORNING 193 fiber finish additive is water soluble. These finishes have a degree of static control that is satisfactory for some uses; however, a water soluble antistat can be added to the finish dilution for extra protection. Comparatively, DOW CORNING FF-400 fiber finish additive has better lubricity. DOW CORNING 193 fiber finish additive exhibits better water dispersibility and static control.

Uses:

The combination of properties exhibited by these fluids, and their effectiveness at very low lubricant add-on levels, make them particularly effective as finishes or finish ingredients for texturing and draw-twisting. They are also effective for knitting operations. Specific applications include:

- * Filament spin-finish additives
- * Staple yarn finish additives
- * Knitting yarn lubricants
- * Coning oil ingredients
- * Texturing lubricants

Typical Properties:**DOW CORNING FF-400:**

Chemical Nature: Organopolysiloxane

Active Ingredients, percent: 100

Viscosity at 77F (25C), cSt: 300

DOW CORNING 193:

Chemical Nature: Organopolysiloxane

Active Ingredients, percent: 100

Viscosity at 77F (25C), cSt: 465

DOW CORNING CORP.: DOW CORNING 75 Emulsion:

Type: Organopolysiloxane
Physical Form: Water-dilutable emulsion
Special Properties: Good water repellency and resistance to spotting and staining
Primary Use: Water repellent and softener for all types of fabrics

Description:

DOW CORNING 75 emulsion is a reactive, methyl silicone emulsion especially designed for use as a water repellent for all types of fabrics. When used with a catalyst, it provides water repellency; used alone it functions as a fabric softener.

Properly applied, dried and conditioned, DOW CORNING 75 emulsion offers:

- * Durable water repellency
- * Durable water borne spot and stain resistance
- * Full luxurious hand
- * Greater tear strength
- * Improved abrasion resistance
- * Increased wrinkle resistance
- * Improved sewability

Additionally, DOW CORNING 75 emulsion is cost competitive. In many cases, this silicone is less costly than other types of water repellents, including fluorocarbons.

Uses:

Current commercial applications for DOW CORNING 75 emulsion span the entire decorative and apparel market, including both woven and knit fabrics of all types.

DOW CORNING 75 emulsion is also used effectively in many softener applications by eliminating the catalyst.

How to Use:

Fabric Preparation:

For maximum water repellency, fabrics which are to be processed with DOW CORNING 75 emulsion should be free of all wetting agents, sizes, drying assistants and other chemical additives. The fabric should have a pH of 5 to 7 for optimum results.

Equipment Preparation:

DOW CORNING 75 emulsion is applied with conventional padding equipment.

Pad Bath Preparation:

The pad bath should be prepared to obtain a pickup in the range of 0.75 to 1.25% silicone solids based on the dry weight of the fabric.

Typical Properties:

Color: Milk white
Specific Gravity at 77F (25C): 1
Silicone Content, percent organopolysiloxane: 30
pH: 4

DOW CORNING CORP.: DOW CORNING 108 Emulsion:

Type: Aminofunctional silicone polymer

Physical Form: Water-based emulsion

Special Properties: Easy formulation and application; will exhaust to many fabrics; contains both silanol and organofunctional reactivity

Primary Uses: As a finish, softener, or hand modifier for woven and non-woven textile applications.

Description:

DOW CORNING 108 emulsion is a 35-percent aminofunctional cationic emulsion polymer that can be air dried and air cured. Unlike conventional silicone polymers, DOW CORNING 108 emulsion features both silanol and organofunctional reactivity. It is capable of exhausting to fibers and fabrics, provides good dilution stability, and offers ease of formulation and application. A one-component treatment, DOW CORNING 108 emulsion reduces the chance for mixing error and minimizes inventory of raw materials.

Because of the particular functionality of DOW CORNING 108 emulsion, coreactions can be affected with many types of plastics and chemicals. Reactions with epoxides, urethanes, and carboxylic acids can desirably alter the properties of these organic polymers by acting as a flexible crosslinker for the cured organic polymer.

Additionally, since DOW CORNING 108 emulsion reacts to form an elastomeric silicone polymer, it:

- * Provides full, rich vibrant hand with body and softness
- * Allows fabrics to be cut and sewn more easily
- * Eliminates the need for organic softeners
- * Gives a non-pilling, non-fuzzing finish to textured polyester knits
- * Imparts softness and anti-blocking to foam-backed drapery fabrics
- * Reduces friction and improves resiliency of polyester fiberfill
- * Improves crock resistance of printed goods
- * Allows post-finish printing of fabrics
- * Provides a fluid barrier for non-woven articles

Uses:

DOW CORNING 108 emulsion can be used as a finish, softener, or hand modifier for a variety of woven and non-woven textile applications. Typical applications include:

- * A finish on acrylic, foam-backed drapes
- * A permanent finish for polyester fiberfill
- * A non-pilling, non-fuzzing finish for textured polyester knits
- * A softener for knits and woven or felted fabrics
- * A softener for acrylics used as snag-resistant finishes for knits
- * A hand modifier for durable press, resin treated fabrics

DOW CORNING CORP.: DOW CORNING Softener CSF:

Type: Silicone fluid
Classification: Polydiorganosiloxane
Physical Form: Medium-viscosity liquid
Special Properties: Yields soft, smooth hand, improved tear strength, better wrinkle recovery and improved fabric elasticity
Primary Uses: As a textile softener and lubricant

Description:

DOW CORNING Softener CSF is a medium-viscosity polydiorganosiloxane manufactured to yield a substantially linear polydimethylsiloxane with reactive aminoalkyl sites. It contains aminoalkyl groups affixed to predominantly polydimethylsiloxane structure.

DOW CORNING Softener CSF is designed for use as a base in the formulation of textile softeners and lubricants. When compared to other textile softeners that may be substituted in a given application, DOW CORNING Softener CSF may offer one or more of these comparative characteristics:

- * Soft, smooth hand
- * Improved tear strength
- * Better wrinkle recovery
- * Improved fabric elasticity

Typical Properties:

Appearance: Clear to slight haze; free from suspended matter and sediment
Color: Colorless to straw yellow
Viscosity at 25C (77F), cst: 1300
Specific Gravity at 25C (77F): 0.96
Refractive Index at 25C (77F): 1.407
Flash Point, Closed Cup, C (F): 141 (285)
Amine Neutral Equivalent: 2000

DOW CORNING CORP.: DOW CORNING Softener SSF:

Type: Silicone fluid
Classification: Polydiorganosiloxane
Physical Form: Medium-viscosity liquid
Special Properties: Yields soft, smooth hand, improved tear strength, better wrinkle recovery and improved fabric elasticity
Primary Uses: As a textile softener and lubricant

Description:

DOW CORNING Softener SSF is a medium-viscosity polydiorganosiloxane manufactured to yield a substantially linear polydimethylsiloxane with reactive aminoalkyl sites. It contains aminoalkyl groups affixed to a predominantly polydimethylsiloxane structure.

Commercial bulk-polymerized dimethylsiloxyl-aminoalkylmethylsiloxyl copolymers such as DOW CORNING Softener SSF typically contain trace amounts of process impurities.

DOW CORNING Softener SSF is designed for use as a base in the formulation of textile softeners and lubricants. When compared to other textile softeners that may be substituted in a given application, DOW CORNING SSF may offer one or more of these comparative characteristics:

- * Soft, smooth hand
- * Improved tear strength
- * Better wrinkle recovery
- * Improved fabric elasticity

Uses:

DOW CORNING Softener SSF is not intended for food or medical use. It is intended for use by industrial manufacturers and chemical formulators as a textile softener and lubricant.

Typical end uses include:

- * Woven fabrics
- * Knit fabrics
- * Brushed fabrics
- * Nonwoven fabrics

Typical Properties:

Appearance: Clear to slight haze; free from suspended matter and sediment

Color: Colorless to straw yellow

Viscosity at 25C (77F), cst: 130

Specific Gravity at 25C (77F): 0.970

Refractive Index at 25C (77F): 1.4065

Flash Point, Closed Cup, C (F): 63 (145)

Amine Neutral Equivalent: 2000

DOW CORNING CORP.: DOW CORNING Softener SSW:

Type: Nonionic emulsion
Classification: Polydiorganosiloxane
Physical Form: Liquid
Special Properties: Yields soft, smooth hand, improved tear strength, better wrinkle recovery and improved fabric elasticity
Primary Uses: As a textile softener and lubricant

Description:

DOW CORNING Softener SSW is a nonionic emulsion that contains 35 percent of an amine functional silicone fluid. It contains a silicone polymer in which aminoalkyl groups are affixed to a predominantly polydimethylsiloxane structure. Small amounts of nonionic materials are present to impart stability to the emulsion. Commercially produced emulsions such as DOW CORNING Softener SSW typically contain trace quantities of process impurities.

When compared to other textile softeners that may be substituted in a given application, DOW CORNING Softener SSW may offer one or more of these comparative characteristics:

- * Soft, smooth hand
- * Improved tear strength
- * Better wrinkle recovery
- * Improved fabric elasticity

Uses:

DOW CORNING Softener SSW is not intended for food or medical use. It is intended for use by industrial manufacturers and chemical formulators as a textile softener and lubricant.

Typical Properties:

Silicone Content, percent: 35
Color: Milk white
Consistency: Water thin
Freeze/Thaw Stability, cycles: >5
pH: 10.5
Suitable Diluent: Water
Emulsifier Type: Nonionic

EASTERN COLOR & CHEMICAL CO.: Anti-Static Agents:**ECCOSTAT:**

A moderately durable anti-static agent, cationic in nature and completely soluble in water for application purposes. With moderate to fairly high drying temperatures, this leaves the residue as a durable antistatic material remaining. This material, of course, is useful on synthetic fibers in general and will not impair the tensile strength of the fabric.

ECCOSTAT C:

This material is a cationic anti-static agent which will provide some softening as well as excellent static inhibition. This product is designed for synthetic as well as natural fibers and blends.

ECCOSTAT P:

This material is a nonionic, 100% active antistatic material designed for general antistatic use. This material is recommended for use on synthetic fibers as well as for the processing of wool where processing oils and emulsions are also present. ECCOSTAT P would be in the non-durable category of antistatic agents.

ECCOSTAT SK:

This material is a durable antistatic agent, cationic in nature, and compounded to give excellent antistat properties on all synthetic fabrics and fibers. This is especially useful on either woven or non-woven materials. Moderate to high drying temperatures, here again, will produce some degree of durability.

ECCOSTAT 90:

A nonionic, water soluble, highly efficient anti-static agent. This material is particularly effective in processing synthetic fabrics and fibers, and may be applied at low concentrations to obtain satisfactory static protection. In addition, this product would also serve to aid in lubricity in fiber processing.

ECCOSTAT 750-F:

Is an antistatic agent showing excellent static control for all synthetic fabric and fibers processing. Readily water soluble and shows improved durability.

EASTERN COLOR & CHEMICAL CO.: Defoaming Agents:

ECCO DEFOAMER HEAVY:

This material is a nonionic silicone base anti-foaming agent, supplied as a soft stable white paste, dispersible in water and found to give excellent anti-foaming properties in a wide variety of systems.

ECCO DEFOAMER KD-3:

This material is a nonionic silicone base defoamer similar in many respects to the above mentioned KD-X product, differing essentially in the silicone content, thereby making this product somewhat more economical.

ECCO DEFOAMER KD-22:

Is a nonionic silicone defoaming agent designed for "quick knock down" of foam for plant processing. The ester dispersion gives moderate viscosity and good stability and ease of solution.

ECCO DEFOAMER NSD:

This material is a non-silicone self-emulsifying hydrocarbon anti-foaming agent, nonionic in design and exhibits relatively good stability under a variety of conditions. This product is extremely useful in certain dyeing processes where silicone is thoroughly objectionable.

ECCO DEFOAMER NS-07:

Is a newly developed non-silicone defoaming agent designed for use in jet dyeing operations to give effective anti-foaming properties, and show immediate knock-down of foam.

ECCO DEFOAMER SD-6:

A low cost, highly effective silicone defoamer used in controlling the excessive foam in water treatment and sewage treatment plants.

Catalysts:

CATALYST RD Liquid:

This material is a buffered inorganic salt catalyst supplied as a liquid and is extremely useful as a fast acting resin catalyst.

CATALYST 143:

This material is a buffered zinc nitrate catalyst, supplied in a solution form and extremely useful and popular in current thermosetting resin finishing.

CATALYST SL Conc.:

This material is a metallic zinc/organic acid emulsion catalyst designed for use with silicone water repellent and has been found to be most efficient and effective in producing durable water repellency in silicone finishing.

CATALYST W:

This material is a magnesium chloride solution catalyst, designed for use with textile resins and a variety of finishing baths.

EASTERN COLOR & CHEMICAL CO.: Dye Carriers & Leveling Agents:**ECCO PAD AUXILIARY 07:**

This refined gum-type material serves to restrict the migration of color in pigment padding.

ECCO ANTI-MIGRANT 2L:

A newly developed pigment pad dyeing anti-migrant for use on cotton and polyester-cotton. Totally water soluble; highly effective.

ECCO ANTI-MIGRANT FRC-2:

An ethoxylated base anti-migrant for pigment pad dyeing to give added leveling and prevent color migration during processing or drying.

ECCO ANTI-MIGRANT W-6:

An acrylic acid anti-migrant compound for use in pigment pad dyeing to prevent color migration. Readily dispersible in pad dye solutions.

ECCO LEVELER #700:

A nonionic dye leveling agent designed for use with wool, synthetics, and blends to give full color value and even level dyeings.

ECCO DYSIST W-46:

A nonionic ethoxylated leveling agent and retarder for wool dyeing with acid dyestuffs. Gives good color value and uniformity.

NYSIST:

This material is an anionic surfactant designed to improve greatly the dyeing of Nylon with the use of neutral metallic dyestuffs and acid dyestuffs. This material is normally used in the presence of a small amount of sodium acetate and will be very beneficial in obtaining smooth even dyeings of Nylon.

NYSIST LSO:

This Nylon leveling agent and retarder will produce excellent uniformity in dyeing and good color value. Ethoxylated components greatly improve the leveling characteristics.

NYLON RESIST NCO:

This nylon dye resist concentrate is provided as a water soluble powder. This Nylon resist product will assist in the dyeing of Nylon to level and even dyeing and retard the drying rate.

**EASTERN COLOR & CHEMICAL CO.: Dye Carriers & Leveling Agents
(Continued):**

POLYDYOL 500:

Is a white semi-viscous emulsion type carrier, more dilute in nature than some of the carriers mentioned above, and is, therefore, a lower priced material. The emulsion already formed, thus produces a stable emulsion with further diluting the dye bath. This material is cyclic in nature, non-toxic, and gives excellent color value in dyeings.

POLYDYOL G-101:

Is an anionic self-emulsifying liquid dye carrier, highly effective in producing maximum of color value and level, spot free dyeings. The active materials are chlorobenzene-biphenyl together with other cyclics and are extremely effective and economical.

POLYDYOL B-6-M:

Is a liquid self-emulsifying nonionic cyclic carrier which again produces excellent color value in the dyeing of polyester fibers. This material is considered non-toxic. This material differs from the above carriers insofar as the active materials are of a different cyclic nature.

POLYDYOL G-1040:

A most effective and efficient dye carrier for dispersed color producing maximum color value, spot free level dyeings. The toxic and hazardous solvents normally found have been removed to greatly reduce the hazardous VOC emissions.

EASTERN COLOR & CHEMICAL CO.: Dye Fixatives:**ECCOFIX 101-40:**

A resinous substantive dye fixative, cationic in nature and considered to be in the durable categories. This material is used in the fixation of direct dyestuff and fiber reactives having a minimum effect on shade to give good dye fixation to wet bleeding and laundering.

ECCOFIX 101-70-D:

A high solids, methyolated resinous dye fixative substantive in nature and in the durable classification. This material may be used at considerably lower concentrations than normal dye fixatives to obtain satisfactory fixation, and will tolerate limited concentrations of electrolytic salts in solution. This product has a minimum effect on shade change and lightfastness.

ECCOFIX CU-5:

This material is a copper containing dye fixative exhibiting excellent fixation properties to bleeding and laundering, and with the presence of copper imparts outstanding lightfastness to many dyestuffs. The shade change is noticeable, however, in the use of such copper containing dye fixatives allowances for this shade change are normally made.

ECCOFIX N:

This material is an anionic fixing agent designed for the fixation of acid colors in Nylon dyeing operations.

ECCOFIX PR:

A non-durable dye fixative, giving wet bleeding protection for in-process goods in plant work. This material is completely water soluble and while giving good protection after its application in the last rinse after dyeing, this fixation has no durability.

Durable Water Repellents:**RANEOFF S:**

A silicone resin emulsion product designed to impart durable water repellency when suitably applied and cured to various fabrics. The recommended CATALYST SL Conc. to be used in the application of RANEOFF S.

RANEOFF D-5:

A resinous/amide durable type water repellent requiring satisfactory curing either alone or in the presence of additional thermosetting resin finishes. This material is highly recommended as an extender for the fluorocarbon type oil/water repellent finishes currently being used.

EASTERN COLOR & CHEMICAL CO.: Dyeing Assistances:

RETARDER O-42:

This material is a mildly cationic organic condensate retarder specifically designed for use with acrylic fibers to obtain a level dyeing and to reduce the dyeing rate.

RETARDIT A:

This material is a cationic organic condensate retarder and leveling agent offering good performance with improved economy.

RETARDIT AM:

This material is a mild cationic organic condensate retarder and leveling agent offering good performance with improved economy.

RETARDER OC:

This material is a quaternary base retarding material found to be extremely effective and efficient in the dyeing of acrylic fibers, and is substantive in nature.

RETARDER 8500:

This product is a modified quaternary type retarding material found to be especially useful in the dyeing of acrylic fibers with cationic and basic dye-stuffs. This product is quite useful in dyeing carpet yarns to give retarding and leveling.

Semi-Durable Water Repellents:

ECCOPEL L:

Is a semi-durable, single package, aqueous water repellent emulsion of the aluminum salt/wax emulsion type composition. This material is designed for producing excellent water repellent properties on all fabrics at minimum cost.

ECCOPEL Z:

Is a single package, semi-durable water-repellent emulsion of the zirconium/wax emulsion type. This product may be used with thermosetting resin finishing baths to give water repellency with the desired finish.

ECCOPEL SPC:

Is a single package water repellent material of the aluminum/wax emulsion type composition, and is designed for use where dyed fabrics are being processed, and where some dye bleeding control is desired. This material has found widespread acceptance in the treatment of automotive fabrics where bleeding must be controlled.

**EASTERN COLOR & CHEMICAL CO.: Semi-Durable Water Repellents
(Continued):**

ECCOPEL 10:

Is a semi-durable solvent phase water repellent material designed for use in a complete solvent system. This product is frequently useful in drycleaning establishments for the reprocessing of outerwear garments to produce water repellency.

ECCOPEL DC-N:

Is a solvent system durable water repellent with added resins to provide stiffness and body as well as water repellency.

Gas Fading Inhibitors:

CELLAMINE CP-M:

This material is an economical permanent gas-fading inhibitor, self-emulsifying in nature and applied during the dyeing process. This material also exhausts readily during the dyeing process to yield a permanent gas-fading protection.

CELLAMINE 62-M:

This product is a self-emulsifying durable gas-fading inhibitor applied during the dyeing process to give permanent gas-fading resistance to the dyed fabrics. This material exhausts readily during the dyeing process, causing no change in dye shade.

CELLAMINE Conc.:

This material is a permanent durable gas-fading inhibitor similar in some respects to CELLAMINE 62-M regarding the active material present, differing in so far as the emulsification system utilized. This material also exhausts readily during the dyeing process to yield permanent gas-fading protection.

CELLAMINE NF-T:

A specially designed gas-fading inhibitor for use with narrow elasticized fabrics where the presence of stiffening resins and optical brightener may result in yellowing on storage. This product usually is applied to white fabrics.

CELLAMINE PAD:

This gas-fading inhibitor is semi-durable in nature and is applied by padding from an aqueous bath. This application gives maximum protection against gas-fading, and is especially suited for printed material where gas-fading protection for both the dyed ground and the print are desired. The application of this material will cause no change in hand, nor will it cause any dulling of bright lustrous fabric. Low temperature drying only is required.

EASTERN COLOR & CHEMICAL CO.: Lubricating Materials:

ECCOLUBE CC:

This material is a white mineral oil compound designed for use in the coning of oils and possesses anti-static properties as well as self-contained emulsifiers for ultimate removing from the processed yarns.

ECCOLUBE L-54:

Is a nonionic self-dispersing lubricant for narrow fabrics, and a yarn lubricant for braiding and weaving. Colorless, and will resist any yellowing.

ECCOLUBE PP:

Is a textile printing lubricant supplied as a nonionic emulsion and used to provide excellent lubricity for pigment prints in machine printing. This product is especially effective with acrylic resins and other synthetic resin emulsion bonding systems

ECCOSOL 150:

A self-emulsifying mineral oil lubricant for fine wire drawing

ECCOLUBE AD:

A glycol/mineral oil lubricant for aqueous printing to give outstanding lubricity for roller and screen printing.

FORMULA AC:

A self-emulsifying mineral oil lubricant for wire drawing. This oil gives superior anti-tarnish properties when the drawn wire is annealed through a FORMULA AC solution.

FORMULA M-75:

A self-emulsifying lubricant and wetting agent used in preparing wire drawing compounds. This product provides lubricity, anti-tarnish properties and chelation of metals.

FORMULA WD/WD2:

A sulfated super-fatted drawing compound. Shows stable dispersibility in water and provides outstanding lubricity for the wire drawing die, thus keeping heat reduced, and permitting higher production speeds.

EASTERN COLOR & CHEMICAL CO.: Printing Auxiliaries:**Metallic Print Binders:****METAGLO SUPER K:**

This product is designed for use in both screen and machine printing on all types of fabrics, and is found to be especially useful in the metallic printing of fiberglas fabrics. The prints obtained with this product show exceptional durability to laundering and dry-cleaning with a maximum of 10% dilution with water for viscosity adjustments.

METAGLO SUPER KS:

Is a metallic print binder designed to give maximum softness to prints with high percentages of print coverage. The resin binders utilized give flexible, soft prints, still retaining brightness, durability of laundering and drycleaning.

METAGLO SUPER K-80:

This metallic print binder is designed solely for screen printing, and is supplied at a particularly high viscosity which is required in particular operations. The fastness of these prints is exceptionally good to drycleaning and laundering; the prints show excellent brightness.

E.B. BLOCKOUT S7565:

Is a printing assistant designed to "blockout" the deep colors of the substrate and permit the pigment colors being printed to excell in brightness and brilliance and not be reduced by ground color showing through. This blockout also produces a soft desirable hand to the fabric.

E.B. GOLDEN GLITTER WF:

A non-metallic, all aqueous printing compound that yields a lustrous metallic appearing print. These prints are soft and show good durability to laundering and drycleaning. Tints are possible by adding concentrated colors.

E.B. NEUTRAL GLITTER WF:

An all aqueous printing compound that provides a lustrous metallic print in a neutral off-white color. With pigment colors being added, unique metallic appearing prints can be achieved to give novelty prints with excellent durability. A variety of tints can be achieved by adding small amounts of concentrated colors.

EASTERN COLOR & CHEMICAL CO.: Anti-Crocking Agents and Binders:

LOW CROCK 18-G:

This low crock is a modified organic resin emulsion designed to give excellent binder properties and is used in an aqueous pigment printing system.

LOW CROCK 335:

Is an anti-crocking agent designed for screen printing to give good durability and excellent crock resistance with a very soft hand and all at low cost.

LOW CROCK H-10 Conc.:

A synthetic SBR type low crock for binding of pigment prints. This binder provides excellent fastness to laundering and a very desirable softness of hand.

ECCO FAST BINDER 1500:

An excellent pigment binder for machine and screen printing to give soft, durable prints with most exceptional wet crock resistance. This binder also exhibits good rub resistance.

ECCO PRINTLUBE:

This material is a printing lubricant used to improve printing conditions in general. This material may be used with pigment colors, pigment whites or metallics to prevent "dry" printing conditions, and to smooth out printing systems.

ECCOBRITE SPECIAL FIRE RETARDANT AUXILIARY 5302:

A most effective flameproofing additive for printing formulations or low crocks to give outstanding protection against flammable prints or finishes. High performance at low concentrations. Compatible with most systems.

ECCO RESIN 234:

A complexed acrylic emulsion compound, providing excellent pigment bonding to a variety of fabric substrates. Non-yellowing and gives maximum softness of hand with excellent binding properties. Useful in pigment pad dyeings as well as printings.

ECCO RESIN 848:

An acrylic based binder designed to provide a soft hand, good durability to laundering and drycleaning and useful in printing and pigment pad dyeing.

EASTERN COLOR & CHEMICAL CO.: Pigment Whites:**ECCOBLANC W-55-Q:**

This material is a single package pigment white printing compound containing its own binding system. This product may also be used successfully in discharge printing and produces excellent whites with good durability to laundering and dry-cleaning. ECCOBLANC W-55-Q is used in both screen printing and roller printing on all types of fabrics.

ECCOBLANC F-250:

Is a newly designed pigment white printing compound containing its own resin binding system. The whitening agents and optical brighteners give maximum whiteness initially and retain adequate whiteness after laundering. The covering power of this pigment white is outstanding for over-printing dyed fabric.

ECCOBLANC GW:

This material is a titanium dioxide pigment dispersion, containing no whitening agent and no optical brighteners. This product may be used in discharge printing provided some binding agent is incorporated; useful in both screen and roller printing.

ECCOBLANC P-75:

Is a prepared pigment white compound ready for immediate use with no further diluting, reduction or print binders being needed. This pigment white contains blueing agents and optical brighteners.

ECCOBRITE WHITE FDX-7832:

Is a highly efficient titanium dioxide pigment white with binders present. This white is useful in roller printing and rotary screens to provide economical prints.

ECCOBRITE WHITE LX-7805:

Is an economical product of the brightest white pigment providing good coverage to dark grounds. Often used to produce very acceptable white prints on white grounds.

ECCOBRITE WHITE BC-7815:

Is a highly loaded pigment white with superior hiding power, excellent wash fastness with a bright cold white shade. Excellent for white-on-white effects as well as stand-out effects on dark ground shades.

EASTERN COLOR & CHEMICAL CO.: Mildew-Proofing Agents and Germicides:

ECCO MP-2004:

Is a 20% dihydroxy-dichloro-diphenyl methane. This emulsion type product is cationic in nature and is compatible with aluminum/wax type water repellent material. This permits the single bath application of a water repellent and a mildew-proofing agent. EPA #6009-8

ECCO MP-2006:

Is also a 20% 2,2'-methylenebis (4-chloro-phenol) (G-4) designed to be compatible with zirconium containing water repellent under certain conditions. This mildew-proofing material will show compatibility with the two package single bath water repellent such as ECCOPEL A and B which contains zirconium, and which must be combined at 50C or less in order to obtain satisfactory compatibility. Here again, this product permits the application from a single bath of a water repellent and mildew-proofing agent. EPA #6009-7

ECCO MP-170-Conc.:

Is a mildew-proofing wax, applicable from a solvent system and will impart onto fabrics water water repellency as well as mildew-proofing protection. This product contains some 17% of the G-4 type mildew-proofing agent compounded with various waxes and plasticizers. EPA #6009-3

Printing Clears and Thickeners:

ECCOBRITE CLEAR CONC. OLH:

Produces a remarkable all aqueous cut clear for pigment printing. A cut-clear made with 2.5% of ECCOBRITE CLEAR CONC. OLH has a viscosity of 25,000 to 27,000 cps. Its smooth running properties are enhanced by a sharp mark, higher than average color yields; and a very soft hand after curing.

ECCOBRITE THICKENER PDQ:

An organic polymerized compound for effective aqueous thickening in printing and pad dyeing formulations. The thickening provided is very smooth and small quantities together with small amounts of ammonia give noticeable increases.

ECCO THICKENER AP:

A polymer for thickening pigment print formulations without the need for ammonia or alkaline materials to be added for developing the viscosities.

EASTERN COLOR & CHEMICAL CO.: Pigment Colors:**ECCOBRITE COLORS:**

A full range of pigment colors in a nonionic system designed for use in screen printing and roller printing applications. May be used with all water or emulsion system clears.

ECCOBRITE PADDING COLORS:

These are resin bonded, nonionic aqueous colors designed for pad dyeing operations. Added resin binders are required.

ECCOSPERSER COLORS:

These materials are nonionic concentrated dispersions of pigment colors. These dispersed colors contain no resin binders and are useful in aqueous systems.

ECCODYE COLORS:

A complete range of colors designed for oil-phase print systems containing alkyd resins as binding agents.

ECCOPUFF:

A unique printing system that provides a raised, three-dimensional type of print for producing special effects and high-fashion novelty printing. ECCOPUFF is applicable to paper, textiles, non-woven and decorative tiles in building applications. These may be pigmented for even greater effects and show good durability.

Sequestering Agents:**OLON CONC.:**

A high solids tetra-sodium EDTA chelating agent, useful as a general chelation product in the control of a wide variety of ions which may interfere with various textile processing such as kier boiling, scouring, and dyeing.

OLON F:

This material is a compounded sequestering agent designed to complex a variety of interfering metallic ions, especially designed for the chelation of large amounts of iron.

OLON Fe SPECIAL:

A sodium di-hydroxy ethyl glycine type material designed to specifically chelate high concentrations of iron under alkaline conditions.

OLON Fe EXTRA:

This is a compounded mixture of organic chelating agents, which Eastern finds to be extremely effective against iron, as well as exhibiting value in the general chelation of most other interfering ions. This material is especially useful in highly alkaline conditions and is economically advantageous for plant use.

EASTERN COLOR & CHEMICAL CO.: Synthetic Softeners:

ECCOSOFT C-200:

This material is a cationic, substantive, fatty type softener. Supplied as a soft flowable off-white liquid designed specifically for use on cotton and cellulosic material, as well as blends of synthetics and cellulose shows minimum yellowing.

ECCOSOFT 36-GR:

This material is a substantive, cationic, high solids fatty amide type softener designed for use and softening efficiency on synthetic fibers as well as cotton and synthetic blends. The product is supplied as a soft paste readily soluble in water and useful in thermosetting resin finishes.

ECCOSOFT SA-36:

This material is an anionic, fatty type softener, similar in many respects to the above mentioned ECCOSOFT 36-GR, except for the fact that this is supplied in an anionic system.

ECCOSOFT 300-W:

This material is a nonionic softener designed to produce satisfactory softening on cellulosic and blends of synthetics and cellulosic fibers. The outstanding feature of this softener is its tremendous resistance to yellowing under extreme conditions of time and temperature. This product is recommended for use with thermosetting resin finishes particularly where high cure conditions are present.

ECCOSOFT UL-30-C:

This material is a cationic substantive amide softener designed for use on both synthetic and cellulosic fabric to supply excellent softness, sewability and some antistatic properties. This softener exhibits good resistance to yellowing and is compatible with a variety of textile finishing formulas.

ECCOSOFT 405:

Is a cationic softener buffered to control the pH at 5 which reduces the cationic effect on dyed goods. The active materials supply excellent softening, are non-yellowing, and also supply a certain fullness of hand. This product is supplied as a soft flowable aqueous paste.

ECCOSOFT PE-30(PE-90):

Are the polyethylene softeners particularly effective and useful in the narrow fabric area. These products differing only in concentration, are excellent emulsions, compatible with most finishing baths and supply good softening.

EASTERN COLOR & CHEMICAL CO.: Synthetic Softeners(Continued):**ECCOSOFT C-805:**

A most efficient cationic quaternary softener for synthetic fibers and fabrics. This substantive softener will exhaust with ease to give outstanding softness. May be incorporated into dye bath or applied from last rinse.

ECCOSOFT S-30:

This material is a nonionic silicone base softener designed to give softness, lubricity, and sewability to treated fabric, and of course, will exhibit absolutely no yellowing under conditions of excessive heat and long term exposure. The product is supplied as a stable white emulsion.

ECCOSOFT D-6:

Is a nonionic softener concentrate supplied at approximately 95% active. This softener provides good softness for synthetics. ECCOSOFT D-5 is readily used since it is a liquid and disperses in room temperature with ease. This softener gives no smoking in drying which is important to reducing air pollution.

Softener Waxes - Concentrated:**BASE WAX 36-AG:**

A cationic substantive, substituted amide wax concentrate containing over 90% active solids. This material may be used to prepare stock solution of softeners or softeners themselves. Essentially recommended for synthetic fibers or fabrics.

BASE WAX C-200:

A concentrated cationic substantive amide wax softener containing over 95% active solids. This product may also be used in the preparation of stock softener products at 25% active levels. This material is essentially recommended for Cotton and synthetics/Cotton blends of fabrics.

ECCO BASE WAX N-60:

This is a concentrated nonionic base wax useful in the preparation of an effective nonionic softening agent when diluted to a 15%-18% level.

ECCOWAX UL-100:

A substituted fatty anide condensate wax concentrate, designed for use in the preparation of stock softener solution or suitable softener products at 20%-27% solids. This material requires the use of acetic acid in order to produce a cationic softener system. This wax softener is recommended for cotton synthetics, and blends of these fibers.

EASTERN COLOR & CHEMICAL CO.: Stiffening Agents:

ECCOGEL F:

This material is a proteinaceous compound designed to give stiffness and hand to suit the desired finishes on various tapes and narrow fabrics.

DURABOND 650/DURABOND 655:

These materials are a synthetic resin stiffener and hand modifier, durable in nature, and designed to supply various degrees of stiffness and hand into finishing formulations.

ECCO FINISH P-25:

This material is a 25% solution for a polyvinyl alcohol designed to give stiffness when applied to fabric. This stiffness can be made durable by exposing the treated fabric to formaldehyde treatment to insure durability.

ECCO SELBIND FL-2-T-1(NEW):

This is a pseudo-selvage type material designed to give edging and stiffness to light-weight knit goods. This product is rapid drying and non-flammable for acetates and Nylons.

ECCO SELBIND THINNER:

The appropriate thinners are supplied in conjunction with the ECCO SELBIND being used.

ECCO FINISH DF-2:

This aqueous solution of a substituted starch provides excellent body and stiffness on textiles and narrow fabrics.

EASTERN COLOR & CHEMICAL CO.: Synthetic Detergents & Emulsifiers:**ECCOTERGE MV Conc.:**

This material is an anionic fatty amide condensate, approximately 98% active solids and is useful as a synthetic emulsifier and detergent.

ECCOTERGE Conc.:

This material is an anionic fatty amide condensate utilizing higher grade raw materials; it is also useful as an emulsifier and surfactant.

ECCOTERGE 200:

This material is a polyethoxylated fatty acid extremely useful as an emulsifier and dispersing agent for solvents in aqueous systems. This ethoxylated material shows excellent solubility in a variety of aliphatic and aromatic solvents.

ECCOTERGE ASB:

This product is the amine salt of an alkyl aryl sulphonate found to be extremely useful as an emulsifier, detergent and surfactant. Supplied at approximately a 60% active concentration, it is light amber viscous liquid.

ECCOTERGE S-35 (25% also):

This material is the sodium salt of an alkaline alkylaryl suphonate. This synthetic detergent and surfactant serves as an emulsifier, detergent, exhibiting some wetting efficiency and rewetting properties. Supplied at 35% and 25% concentrations.

ECCOTERGE EOX:

A synthetic detergent and scouring agent exhibiting good foaming and soil removal properties. This product is most useful in scouring natural fiber and processing oil from synthetic fibers.

ECCOFUL DL(Conc.):

Is a compounded fulling and scouring agent for wool processing to provide excellent scouring, softness of fabric, and minimum redeposition.

ECCOFUL NMR:

A highly concentrated fulling agent, nonionic in nature providing good penetration and detergency in the fulling bath.

EASTERN COLOR & CHEMICAL CO.: Thermosetting Resins:

ECCO REZ 3070:

This material is a cyclic methylated high solids resin, designed for stiffness on Nylon and synthetics. This material is viscous in nature, and has extremely good storage stability. Catalysts are required.

ECCO REZ S-1050:

This material is a cyclic methoxylated urea formaldehyde thermosetting resin, designed to supply crease resistance, shrinkage control, in a minimum of stiffness and hand. This material also exhibits excellent stability with prolonged storage, is supplied as a clear colorless thin liquid. Catalysts are required.

ECCO REZ M-300-7:

This material is a high solids melamine formaldehyde resin, designed to produce stiffness and excellent durability when applied to various fabrics in a resin finishing bath. This material exhibits good stability up to 90 days, and is supplied as a clear viscous liquid. A catalyst is required.

ECCO REZ GLF:

Is a glyoxal reactant finishing resin to provide internal fiber stability and crease resistance to fabrics and chlorine resistance for properly cured finishes.

ECCO RESIN NFA:

A water solubilized alkyd type resin for finishing of narrow fabric - producing excellent firmness and stiffness and greatly reducing "mark off" on dark shades of narrow fabric.

ECCO RESIN NFA-3:

A modified water type alkyd for narrow fabric finishing. This product also yields stiffness and greatly reduces "mark off".

REZ COUPLER X-40:

Is a formaldehyde reactant designed to prevent the objectionable odors which develop from resin treated goods. In addition to reducing odors at the curing range, this product has a durable effect in reducing odor development on treated fabrics stored over a prolonged period of time.

EASTERN COLOR & CHEMICAL CO.: Scouring Agents and Tipping Solutions:**ECCOCLEAN CR-46:**

A self-emulsifying solvent cleaner with added solvency to give that "EXTRA" cleaning power. Useful on the difficult cleaning problems, is water dispersible for ease of removal.

ECCOCLEAN RPW:

A self-emulsifying solvent cleaner which will provide rapid penetration and solvency of difficult cleaning problems. This product is combustible and precautions are required.

ECCOCLEAN RPW-5/WA:

This material is a slightly modified version of ECCOCLEAN RPW, and is offered as a more effective specialized solvency for stubborn cleaning problems.

ECCO TAR REMOVER 102-L:

This anionic tar remover is most effective in removing oils and greases from both synthetic and wool fabrics. The active materials are non-flammable, non-toxic, very low in odor formation and are very acceptable from a health standpoint while also being most efficient.

ECCOSOLV C-14:

This material is a solvent cleaner, self-emulsifying used essentially in the cleaning and degreasing of machine parts.

ECCO SOLVENT N:

This material is a chlorinated solvent used essentially for degreasing in the machine tool industry.

ECCOSCOUR D-7:

Is an amphoteric detergent and surfactant possessing both anionic and nonionic properties. This product shows excellent detergency and has the characteristic of keeping oil and dirt suspended and not permitting redeposition. In scouring of dyed fabric, this product has a mild stripping action.

ECCOSCOUR CB:

This anionic/nonionic surfactant and scouring agent is most effective in soil removal and hold the soil in suspension until removal in rinsing. Recommended for pre-dyeing scouring.

EASTERN COLOR & CHEMICAL CO.: Tipping Solutions:

SOLVENT B:

This material is a universally used shoelace tipping solvent exhibiting excellent drying properties and quick solubilization of the acetate films normally used in shoelace tipping. The formulation is such as to supply the aforementioned property without causing cloudiness or whiteness in the finished tip.

SOLVENT B-200:

This material also is a shoelace tipping solvent modified to alter the drying properties without altering the other desirable characteristics.

ECCO TIPPING B-2:

This material also is a shoelace tipping solvent modified.

ECCO TIPPING SOLUTION #3:

This blend of solvents provides excellent shoe lace tipping with cellulose acetate and improved economy.

NYLON PS-22:

This material is a Nylon tipping solution wherein the tip is obtained by the partial solubilization and heat treated molding of the Nylon lace rather than the application and bonding of any film material. This material is extremely corrosive to the skin and must be handled with caution.

M-1421-(7B) (12B) NYLON TIPPING SOLUTIONS:

These solvent system tipping products provide Nylon tips to Nylon cord with proper heat/mold procedures.

Adhesives:

ECCOBOND ADHESIVE SPECIAL #2:

This adhesive is a resin/solvent adhesive material compounded to supply satisfactory initial tack. The solvent system has been carefully selected for somewhat rapid evaporation, thereby requiring minimum temperature and ventilation. Useful in textiles and paper board industries.

F-624 MACHINE GLUE:

This dextrine based adhesive is excellent for cardboard or paper to provide a quick tack and lasting adhesion. Also useful in labeling.

Bleaching Agents:

ECCO BLEACH ASSIST:

This product gives odor inhibition and provides an excellent aid to bleaching of Nylon and Cotton. Also serves to chelate ions that become available in bleaching.

EASTERN COLOR & CHEMICAL CO.: Wetting Agents & Penetrants:**ECCOWET W-50:**

This material is a sulfated organic ester exhibiting exceptional wetting efficiency in water at extremely low concentrations. The product is completely colorless; however, this product show limited compatibility in alkaline solutions satisfactory solubility under neutral or slightly acidic conditions. This product when used as a wetting agent will also exhibit good re-wetting properties.

ECCO W-88:

This material is essentially the same as the above mentioned ECCOWET W-50, except for the active concentration of the material. This product, of course, is notably more economical, and again, exhibits re-wetting properties.

ECCOWET LF Conc.:

This material is a sodium salt of an alkyl naphthalene sulfonate, and is, therefore, anionic in nature, exhibiting excellent efficiency and compatibility under alkaline conditions. This material is frequently used in vat dyeings where alkaline compatibility is a requirement.

ECCOPON 600-L:

This material is a modified ethoxylated condensate type surfactant, nonionic in nature and exhibiting excellent compatibility and wetting efficiency in highly alkaline conditions. This product also exhibits good re-wetting properties and has found widespread acceptance in textile processing from use in kier-boiling on through many other wet processing stages.

ECCOWET Y-50:

A nonionic, extremely effective and economical wetting agent and surfactant. Compatible with most processing systems giving good penetration.

Dulling Agents:**ECCO DULLER W-55-Q:**

This material is a highly concentrated dulling agent making use of the dulling properties of titanium dioxide. The material exhibits some durability and may be used in relatively dilute solution to obtain satisfactory dulling. (1%-2%).

ECCO DULLER L:

This material is a mildly cationic light colored dulling agent compounded to supply dulling for bright yarn and fabric and requiring a near-white dulling agent.

EASTERN COLOR & CHEMICAL CO.: Dulling Agents(Continued):

ECCO DULLER D:

This material is an anionic dulling agent designed to give adequate dulling on bright yarn or fabric, but useful where a slightly off-white duller is acceptable on dyed grounds.

ECCO DULLER L-20:

A mildly cationic light duller for synthetic fabric with efficiency and contributes to softening.

ECCO DULLER E-2:

A non-ionic duller with resin fixation for a more durable duller utilizing titanium dioxide. Suitable for padding applications.

Flameproofing Agents:

ECCO FLAMEPROOF LB-2:

This material is a liquid flameproofing agent containing more than 60% solids offering good flameproof protection. This product is durable to drycleaning, non-durable to laundering.

ECCOGARD NWR:

This product is a resinous condensation designed to provide flame retardancy to nylon. The application requires curing, certain water repellents may be incorporated into some finishes-contains formaldehyde.

ECCO FLAMEPROOF PE-100:

A resinous flameproof product which provides flame retardancy to polyester fabrics and blends. The flame retardant properties are durable to many launderings. A mild after-wash following drying of treated fabrics will provide a soft flame retardant finish.

ECCOBRITE SPECIAL FIRE RETARDANT AUXILIARY 5302:

Is a compounded flame retardant latex designed to provide flame retardancy to prints applied to flame resistant substrates. This product will not flameproof fabrics. Prints will show good durability.

ECCO FLAMEPROOF WN-17:

A semi-durable flame retardant application especially suited for wool, wool/nylon, wool/polyester blends. Laundering will remove this finish.

ECCO FLAMEPROOF CPE:

A semi-durable organic phosphate reaction product for flame retardancy for synthetics and cellulosics. This product has shown outstanding performance when applied to nylon and similar fibers.

EASTMAN CHEMICALS: Textile Chemicals:**EASTMAN LB-30:**

Form: Liquid
% Solids: 30
Color: Straw
pH: 5.5

EASTMAN LB-100:

Form: Pellet
% Solids: 100
Color: Amber
Tg C (F): 36/97

EASTMAN WMS:

Form: Pellet
% Solids: 100
Color: Amber
Tg C (F): 38/100

EASTMAN WNT:

Form: Liquid
% Solids: 25
Color: Straw
pH: 5.5

EASTMAN MPS:

Form: Liquid
% Solids: 30
Color: Straw
pH: 5.5

EASTMAN WD-30:

Form: Liquid
% Solids: 30
Color: Straw
pH: 5.5

EASTMAN WD-100:

Form: Pellet
% Solids: 100
Color: Amber
Tg C (F): 28/100

EXXON CO., U.S.A.: TELURA Industrial Process Oils:

Applications: Textile Conditioning Oil

Naphthenic:

TELURA 323:

Viscosity cSt at 40C: 20.8
Viscosity SSU at 100F: 110
Gravity API: 26.3

Extracted Naphthenic:

TELURA 407:

Viscosity cSt at 40C: 8.7
Viscosity SSU at 100F: 56
Gravity API: 30.5

Extracted Paraffinic:

TELURA 607:

Viscosity cSt at 40C: 7.0
Viscosity SSU at 100F: 50
Gravity API: 36.2

TELURA 612:

Viscosity cSt at 40C: 13.0
Viscosity SSU at 100F: 74
Gravity API: 35.1

TELURA 613:

Viscosity cSt at 40C: 13.3
Viscosity SSU at 100F: 75
Gravity API: 34.0

TELURA 619:

Viscosity cSt at 40C: 20.0
Viscosity SSU at 100F: 105
Gravity API: 32.5

TELURA 671:

Viscosity cSt at 40C: 111.7
Viscosity SSU at 100F: 583
Gravity API: 29.2

FINETEX INC.: Textile Product List:**Antistats:****CORDEX DJ:**

Effective cationic agent to prevent static electricity on synthetic fibers. Recommended for use in the dyebath or finish bath.

Cationic.

Compatibilizers and Clearing Agents:**FINSIST N-5:****FINSIST N-535:**

A special compatibilizer for anionic/cationic dyeing systems. Dispersing and leveling agent for disperse dyes. Excellent after scour prevents cross staining of dyestuffs in multifiber dyeing.

Anionic/Nonionic

FINSIST WW:

Compatibilizer for anionic/cationic dyeing systems. Leveling agent for disperse and cationic dyes.

Nonionic.

Defoamers:**ALBON FF-2:****ALBON FF-5:**

Non-silicone defoamer for use in textile dyeing and printing.

Non-silicone

ALBON S-1 Conc.:**ALBON SC:****ALBON SO:**

Specially formulated silicone emulsions having outstanding foam suppressing properties. For use in textile dyeing, sizing, paper coating, latex binding, and other chemical processing.

Dispersing Agents:**ACRILEV AM:****ACRILEV AM Special:**

Specially compounded to act as dispersing, leveling, scouring and wetting agent.

Anionic Phosphate Ester

FINETEX INC.: Textile Product List(Continued):

Dispersing Agents(Continued):

CORDON COT:

Dispersant for direct and disperse dyes.
Modified Sulfonate

CORDON N-400:

Dispersant and pasting aid. Anti-agglomerate, effective with disperse dyes.
Anionic Sulfonate.

CORDON NU 890/75:

Dispersing, leveling, and penetrating agent. Lubricant.
Anionic Sulfonated Castor Oil

CORDON 900:

Dispersing and lubricating agent.
Sulfonated Synthetic Sperm Oil

GEMTEX SC Series:

Surfactants, wetting, and dispersing agents.
Anionic Sulfosuccinate

GEMTEX WNT Series:

Scouring, leveling, washing, and dispersing agents.
Crypto Anionic

Dulling Agents:

LUSTERLAC P-35:

Used on rayon, acetate, nylon, polyester, and other synthetic fibers.
Delusterant

LUSTERLAC P-35ND:

Used on rayon, acetate, and other synthetic fibers.
Delusterant

Dye Carriers:

ACCELERIT BP-12N:

Dye carrier for polyester and blends. Suitable for atmospheric equipment.
Emulsified Biphenyl, Methyl-naphthalene

ACCELERIT LF-7:

Dye carrier for polyester and triacetate in pressure and jet machines. Low foaming.
Emulsified Butyl Benzoate, Chlorinated Benzene

FINETEX INC.: Textile Product List(Continued):**Dye Carriers(Continued):****ACCLERIT LO-50:**

Economical dye carrier for polyester and blends. Suitable for atmospheric equipment as well as pressure equipment.

Emulsified Solvents & Blends

ACCELERIT LO-10:

Dye carrier for polyester and blends used in atmospheric equipment. Excellent color yield.

Emulsified Solvents and Blends

ACCELERIT T-1218:

Dye carrier for atmospheric dyeing of polyester, triacetate, and blends. Excellent color yield.

Emulsified Chlorinated Benzene Butyl Benzoate

ACCELERIT 10-18MX:

Biodegradable dye carrier for polyester and triacetate. Suitable for pressure and jet equipment. Excellent leveling.

Emulsified Butyl Benzoate, Long Chain Ester

ACCELERIT 6N5:

Carrier for cationic dyeable polyester. Will prevent staining regular polyester in atmospheric and pressure equipment. Excellent color yield and leveling properties.

Emulsified Butyl Benzoate and Chlorinated Benzene

ACCELERIT NT-515:

"Non carrier carrier" dyeing of polyester in pressure and jet equipment. Highly economical as very low amount is required. Specialized Patented Esters

Dye Carrier Base:**Butyl Benzoate:**

Biodegradable carrier base.

Dye Fixatives:**DYFAS SF Conc.:**

Dye fixing agent for direct dyes on cellulosic fiber. Excellent wet fixation of dyes.

Cationic Aliphatic Resin

FINETEX INC.: Textile Product List(Continued):

Fire Retardants:

FIRE RETARDANT 51:

Fire Retardant for cellulosic fibers, kraft paper, and stock, non permanent.

Solution of fusible, vapor producing salt

FIRE RETARDANT NYL:

Fire Retardant for nylon applied in pad bath.

Solution of fusible, vapor producing salt

Gas Fade Inhibitors:

DURACET TDF:

Gas fading inhibitor for acetate and triacetate. Applied in the dyebath.

Aromatic Amines

Leveling Agents and Dyeing Assistants:

FINAPAL E New:

Leveling agent for disperse dyes. Recommended for dyeing polyester, acetate, triacetate, and nylon.

Anionic

FINSIST 7C Conc.:

FINSIST 7C:

Leveling and penetrating agent especially recommended for dyeing of nylon with acid dyes. Good barre' coverage on nylon.

Anionic

FINSIST C2 Conc.:

FINSIST C2:

FINSIST C2C:

Retarding and leveling agents for acrylic fibers dyed with cationic dyes. No loss in color yield.

Cationic

FINSIST LFL:

FINSIST LFL-28:

Low foaming surfactant and dyeing assistant for all textile fibers to be dyed in jet equipment.

Nonionic

CORDON AES:

CORDON AES-65:

Leveling and retarding agent for dyeing of VEREL and other acrylic fibers. Excellent lubricity.

Anionic

FINETEX INC.: Textile Product List(Continued):

FINSIST NL-16:

Leveling and retarding agent recommended for dyeing of nylon with acid dyes. Also recommended for dyeing and scouring Nylon hosiery in one bath.

Anionic

FINSIST WW:

Leveling and dispersing agent for anionic-cationic dyeing systems. Extremely effective in dyeing of acrylics and blends.

Nonionic

FINSIST PE-5-LC:

Trimer suppressor for dyeing of polyester in pressure and jet dyeing equipment.

Anionic

FINSIST STR:

Leveling and stripping aid in stripping resins for cotton and polyester/cotton blends.

Cationic

Lubricants:

CORDON AES:

CORDON AES-65:

Excellent for preventing crack and crease marks on all textile fibers. Provides lubricating, penetrating, and leveling properties. Improves sewability.

Anionic Aliphatic Ester Sulfate

CORDON NI-100:

Lubricating and penetrating agent for various fibers. Excellent for preventing crack and crease marks in dyebath.

Nonionic

CORDON NU 890/75:

Lubricating, wetting, penetrating, leveling, dispersing, and softening agent.

Anionic

FINS-CROOP #5:

Scrooping agent and napping assistant for all textile fibers

Nonionic

FINETEX INC.: Textile Product List(Continued):

Odor Modifiers:

NO FORM HS-4:

NO FORM HS-50:

Odor modifying agents to help control sulfur dyeing odors.
Also effective for odors in bleaching operations.

Nonionic

NO FORM SS:

NO FORM SS-2:

NO FORM SS-1 Conc.:

Odor modifying agents to help control odors in resin finishing

Nonionic

Printwash and Boil Offs:

FINDET Series:

Detergent, wetting, and penetrating agent.

Phosphate Ester Anionic

GEMTEX WNT Series:

Detergent, wetting, and penetrating agent.

Crypto Anionic

PARANOL K Series:

Detergent, wetting, and penetrating agent.

Nonionic

TAURANOL Series:

Detergent, wetting, and penetrating agent.

Taurate-Anionic

DETERSOL DS:

Caustic stable detergent. Does not interfere with enzymes.
Strong ability to remove waxes.

Anionic

DETERSOL PW-2 Conc.:

Printwash detergent. Prevents redeposition.

Anionic

Printing Assistant:

DISPERSANT J-101-B:

Solvent for acid dyes used in printing. Non-toxic, non-flammable. Eliminates kromfax and solvents.

Anionic

FINETEX INC.: Textile Product List(Continued):

Resins:

RESIN D-20:

Bonding and finishing agent for all types of textiles.
Provides durability to laundering and washing.
Acrylic Copolymer-Nonionic

RESIN PLP:

Provides wrinkle and crease resistant finish to various
textile fabrics.
Thermosetting, Urea Formaldehyde Condensate

RESIN R-5:

Produces clear, high luster finish for acetate ribbon fabrics
and taffetas. Does not require curing.
Alkyd Resin

RESIN TR-14:

Non-yellowing resin for acetate linings, rayon and acetate
quilting, and blanket bindings.
Thermoplastic, Polyester Resin

Scouring Agents - Non Solvent:

ACRILEV AM:

ACRILEV AM Special:

Highly effective multipurpose scouring, leveling, and dis-
persing agent.
Phosphate Ester Anionic

DETERSOL WD:

Low foaming.
Nonionic

DETERSOL DS:

Detergent for scouring, wetting, and dispersing. Power wax
and oil remover.
Anionic Complex

AMINOL LAN:

Highly effective scouring agent for wool, mohair, and other
animal fibers.
Anionic/Nonionic

GEMTEX WBT-9:

Wetting and penetrating agent. Excellent stability in high
amount of caustic soda.
Anionic

FINETEX INC.: Textile Product List(Continued):

Scouring Agents - Non Solvent(Continued):

GEMTEX WNT Conc.:

GEMTEX WNT-L:

GEMTEX WNT-LV:

Versatile scouring agents with good wetting and dispersing. Used as dye leveling agent. Stable to bleaches in most pH ranges.

Crypto Anionic

PARANOL K:

PARANOL K-80:

For use on all fibers, natural and synthetic. Good wetting. Stable to resins and finishing chemicals. Biodegradable.

Nonionic

RUETERG Series:

Emulsifiers, detergents, wetting agents, scouring and dyeing assistants.

Alkylaryl Sulfonates Anionic

TAURANOL M-35:

TAURANOL ML:

TAURANOL T-GEL:

Versatile surfactants and detergents for washing piece goods, raw stock and yarn. Stable at all temperatures and at a wide pH range. (3-1/2 to 12). Used in soaping prints, bleaching, dyeing, wetting and finishing of textiles, and as an assistant in kier boiling. Excellent rinsability. Excellent detergent properties. High foam.

Taurates - Anionic

FINSIST LFL:

FINSIST LFL-28:

Very low foam surfactant and scouring agent for all textile fibers. Especially suitable for pressure and jet equipment. Nylon leveler.

Nonionic

Scouring Agents - Solvent:

DETERSOL X-66:

Solvent based scour for all textile fibers. Used for scouring and dyeing in one bath.

Nonionic/Anionic

FINETEX INC.: Textile Product List(Continued):**Scouring Agents - Solvents(Continued):****DETERSOL HF:**

Solvent based scour. High flash point solvent.
Nonionic

DETERSOL 116:

Solvent scouring agent with good wetting properties.
Anionic/Nonionic

Sequestrants:**GEMTEX 19:**

Chelating agent for metal ions. Effective over wide pH range and under extreme temperature conditions.
Sodium Salt of EDTA

GEMTEX 162:

Highly concentrated agent to sequester metal ions. Effective over wide pH range.
Sodium Salt of EDTA

Size Auxiliaries:**BONDEX 300:**

Highly refined gelatin. Size for velvets and stiffening of other textile materials.
Technical Gelatin

CORDON PB 870:

Specialty for sizing to produce a tough, pliable film with starch and gelatin. Helps eliminate warp breaks in slashing and weaving.
Sulfonated Tall Oil

Softeners:**FINSOFT HM-100:****FINSOFT HM-100 Flake:****FINSOFT HM:**

Softener for synthetic and natural fibers. Gives soft, cashmere texture. Recommended for rapid dyeing of acrylic fibers. Non-yellowing. Apply pad or exhaust bath.
Cationic

FINETEX INC.: Textile Product List(Continued):

Softeners(Continued):

FINSOFT GM 100:

FINSOFT GM:

Softener for cotton, cotton/polyester, nylon, acrylic and other synthetic fibers. Gives soft, silky hand. Non-yellowing. Modified Cationic

FINSOFT OP Series:

Softeners for sheeting consisting of cotton and synthetic blends. Also used as overprint softener.

Nonionic

FINSOFT 117:

Highly active napping lubricant and softener for natural and synthetic fiber blend. Good wetting and penetrating properties.

Cationic

FINSOFT 200:

Softener for cotton, cotton/polyester, nylon, acrylic and other synthetic fibers. Gives soft, silky hand. Non-yellowing.

Cationic

FINSOFT TS Series:

Towel softeners for use on cotton and synthetic blends. Excellent softening without sacrificing wicking and absorbancy properties.

Cationic

FINSOFT 400G:

Napping softener for cotton, rayon, and synthetic blends. Compatible with resin finishes. Used as dyebath lubricant. Non-yellowing.

Nonionic

Weighters:

WEIGHTER SK:

WEIGHTER SK-2:

Used alone or in combination with resin formulations to produce added weight to knit fabrics. No change in hand, shade, or cure.

Hygroscopic Agents

FINETEX INC.: Textile Product List(Continued):**Wetting Agents:****GEMTEX SC-70:****GEMTEX SC-75:**

Extremely powerful wetting and penetrating agent widely accepted for hard-to-wet textiles. Used in desizing, scouring, bleaching, carbonizing, dyeing, and printing.

Sulfosuccinate - Anionic

FINDET Series:

Wetting and scouring agent. Used in scouring, bleaching, print washing, and dyeing.

Phosphate Esters - Anionic

GEMTEX WNT:**GEMTEX WNT-L:****GEMTEX WNT-LV:**

Surface active and wetting agent for all textile fibers. Used in desizing, scouring, dyeing, and soaping off.

Crypto Anionic

Machine Cleaners:**DETERSOL MC-10 HF:**

Powerful dye-machine cleaner. Caustic and hydro may be omitted.

Detergent Blend

FLAME CONTROL COATINGS, INC.: Textile Chemicals:

FLAME CONTROL, INTERIOR, FABRIC FLAME RETARDER:

Product Description:

FLAME CONTROL FABRIC FLAME RETARDER is highly effective in reducing the combustibility of cotton, cotton blends, linen, viscose, rayon, paper and other cellulose products. Its use does not affect the hand (feel) or appearance of most fabrics.

Application: Spray, dip or rinse

Spray Method:

Light weight fabrics: Should be sprayed once on each side.

Medium and heavy weight fabrics: Should be sprayed two or more times on each side

Dip or Rinse Method:

All weight fabrics can be dip or rinse processed.

Drying: Air or force dry.

Ironing: If desired, fabrics may be ironed in normal manner.

FLAME CONTROL NO. 5 EXTERIOR FABRIC FLAME RETARDER:

Product Description:

FLAME CONTROL NO. 5 EXTERIOR FABRIC FLAME RETARDER is a specially formulated solvent-based compound, designed to retard the burning of fabrics that may be exposed to weather. It will not leach out, even when exposed to a continuous hose stream. It is recommended for use on welding curtains, canopies, dividers, awnings and tents. Properly treated materials will meet the requirements of NFPA 701-75 and will repel water.

Application:

Stir and mix thoroughly before applying. NO. 5 FABRIC FLAME RETARDER may be applied by brush, spray or dipping. In all cases, fabric should be completely saturated.

Coverage:

One gallon will treat approximately 450 ounces of cotton duck material.

Drying Time:

Drying time varies with weight of fabric and weight add on.

FLAME CONTROL COATINGS, INC.: Textile Chemicals(Continued):**FLAME CONTROL NO. 6 FIRE RETARDANT AND WATER RESISTANT FABRIC TREATMENT:****Product Description:**

FLAME CONTROL NO. 6 is a clear, water base, fire retardant solution for use on fabrics, manufactured from various synthetic fibers, cottons, and blends thereof. It is paint-like in appearance, but dries clear in about 8 to 12 hours. Drying time depends on temperature and humidity. After drying, the fabric is washable by lightly spraying with a mild soap solution and rinsing with water.

Application:

Stir well before using. Apply by either spraying or dipping.

Coverage:

Depends on the weight, thickness, and absorbent properties of the fabric being treated. Generally, one gallon of FLAME CONTROL NO. 6 will treat about 7.5 pounds (3.4 kilos) of fabric.

CHEK-RUST NO. 25 FABRIC SEALANT:**Product Description:**

CHEK-RUST NO. 25 is an almost odorless, colorless based fabric sealant designed for use on cloth, velour, and carpets. Properly treated surfaces will not spot or soil, and will remain free of unsightly stains for years.

Properties:

- * Forms a protective, invisible shield
- * Prevents spotting and staining
- * Cloth, velour, and carpets remain soft and neutral

Directions for Use:

Fabrics to be treated must be clean and absolutely free of detergents prior to use. In addition, the fabric must be colorfast.

FMC CORP.: Phosphate Chemicals in Textile Processing:

Phosphorus compounds make up a vast quantity of chemicals used by industry and consumers throughout the world. Of the many phosphorus compounds that exist, phosphates (the salts of phosphoric acids) are the ones most frequently used in textile processing.

The orthophosphates are inorganic salts of orthophosphoric acid which result when one or more of the hydrogen ions of the acid are replaced by other positively charged ions. They are most commonly available in the three sodium forms of the salt: monosodium phosphate (in which one sodium ion substitutes for a hydrogen), disodium phosphate, and trisodium phosphate. These are usually abbreviated as MSP, DSP, and TSP, respectively.

One form of orthophosphate is extremely well known in textile processing. This is trisodium phosphate crystal, or TSP-X.

Polyphosphates are the second class of phosphate chemicals. They are formed by linking together two or more orthophosphates into a chain or inorganic polymer.

The first group is that of the pyrophosphates, or diphosphates, consisting of two orthophosphates linked together.

The next group consists of tripolyphosphates, or triphosphates.

The last group to be considered is comprised of polyphosphates with chain lengths of more than 3 orthophosphates.

Phosphate structure and functions:

Phosphate:

MSP:

Formula: NaH_2PO_4

Function: Buffered pH Control: Yes
Sequestration: No

DSP:

Formula: Na_2HPO_4

Function: Buffered pH Control: Yes
Sequestration: No

TSP-X:

Formula: $\text{Na}_3\text{PO}_4 \cdot 1/4\text{NaOH} \cdot 12\text{H}_2\text{O}$

Function: Buffered pH Control: Yes
Sequestration: No

TSPP:

Formula: $\text{Na}_4\text{P}_2\text{O}_7$

Function: Buffered pH Control: Yes
Sequestration: Yes

STPP:

Formula: $\text{Na}_5\text{P}_3\text{O}_{10}$

Function: Buffered pH Control: Yes
Sequestration: Yes

SHMP:

Formula: $(\text{NaPO}_3)_3 \cdot \text{Na}_2\text{O}$

Function: Buffered pH Control: No
Sequestration: Yes

FMC CORP.: Sodium Tripolyphosphate as a Textile Scouring Aid:

The removal of metallic ions from cloth and production liquids to improve efficiency in textile wet-processing has presented a problem to the industry for years. Much effort has been directed at removing or tying up the iron or copper ions that can cause problems when hydrogen peroxide decomposes during the bleaching sequence, but other ions such as calcium and magnesium can also cause process difficulties. These metals, which can be found in cotton and are the main components of hard water, tend to form insoluble soaps with the fabric's natural fiber fats, oils and waxes (FOW). These hard water soaps and FOW's redeposit on cloth causing poor dyeability.

FMC textile experts, recognizing the problem, felt that sodium tripolyphosphate (STPP) could be of value as a textile scouring booster. Sodium tripolyphosphate has long been the builder of choice in laundry detergents where it is used to tie up and sequester hard water ions, but it has seen limited use in the textile industry.

They also saw that STPP could be used to:

- * increase the detergent action of the natural soaps formed from waxes during scouring.
- * disperse impurities removed from the cotton during washing,
- * reduce hardness from both the water and the cloth.

All of the above can help reduce the cost of processing.

FMC has now demonstrated that the use of sodium tripolyphosphate (STPP) as a scouring aid greatly improves overall quality of a wide variety of woven fabrics. Plant trials at major textile mills using STPP in the scour stage have shown a significant increase in the removal of fats, oils, and waxes (FOW); increased reflectance; and improved absorbency. This means better and faster scouring, and more rapid and even dye uptake, especially with difficult to dye colors.

STPP treatment can be of special advantage when goods are processed without bleaching, as when corduroy is dyed as a dark color.

STPP is a safe, inexpensive, and easy to use chemical available from FMC. The cost of using STPP in your scouring operation is less than 2/10 cent per pound of textile when applied at 0.5% weight of fabric (WOF).

STPP offers a number of processing advantages:

- * Less build-up of hard water scale on processing equipment
- * Superior penetration, emulsifying, and dispersing properties
- * Ability to form water soluble complexes
- * Ease and safety in handling

Compared to other phosphates used in textile scouring, STPP:

- * Is a more cost effective scouring aid
- * Is up to twice as soluble at normal processing temperatures
- * Provides more P2O5 than TSP-crystals or tetrasodium pyrophosphate

GIST-BROCADES USA INC.: RAPIDASE Products:

RAPIDASE XC-T:

bacterial alpha amylase

RAPIDASE XC-T is an industrial grade enzyme preparation formulated to a standardized alpha amylase activity with water and sodium chloride. Alpha amylases catalyze the hydrolysis of alpha-1,4 glucosyl linkages in polysaccharides such as starch and glycogen. This enzyme product is used by the textile industry to improve the desizing of cloth by hydrolyzing starch in the fiber coating.

Activity: 500 TAAU/g

Appearance: Amber to dark brown liquid

pH (as is): 6.5-7.0

Specific Gravity: Expected range of 1.08-1.14

RAPIDASE 720-T:

bacterial alpha amylase

RAPIDASE 720-T is an industrial grade enzyme preparation formulated to a standardized alpha amylase activity with water and sodium chloride. Alpha amylases catalyze the hydrolysis of alpha-1,4 glucosyl linkages in polysaccharides such as starch and glycogen. This is a high potency enzyme product used by the textile industry to improve the desizing of cloth by hydrolyzing starch in the fiber coating.

Activity: 1,000 TAAU/g

Appearance: Amber to dark brown liquid

pH (as is): 6.5-7.0

Specific Gravity: Expected range of 1.08-1.13

RAPIDASE HS-T:

bacterial alpha amylase

RAPIDASE HS-T is an industrial grade enzyme preparation formulated to a standardized alpha amylase activity with water and sodium chloride. Alpha amylases catalyze the hydrolysis of alpha-1,4 glucosyl linkages in polysaccharides such as starch and glycogen. This is a highly concentrated enzyme product used by the textile industry to improve the desizing of cloth by hydrolyzing starch in the fiber coating.

Activity: 2,000 TAAU/g

Appearance: Amber to dark brown liquid

pH (as is): 6.5-7.0

Specific Gravity: Expected range of 1.08-1.17

GRINDSTED: SOBALG Alginates:**SOBALG Alginate Group:****SOBALG FD:**

Principal Application Area: Food

Typical Applications: Dairy products, sauces, desserts, structured fruits and vegetables, structured meat and fish, etc.

SOBALG TX:

Principal Application Area: Textiles

Typical Applications: Textile printing

SOBALG TC:

Principal Application Area: Technical

Typical Applications: Water treatment, welding rods, etc.

SOBALG PH:

Principal Application Area: Pharmaceutical

Typical Applications: Dental impressions, tableting, etc.

Within each group of SOBALG alginates different series are available:

SOBALG FD/TX/TC/PH Series:**000:**

Alginic Acid

Affirmed* GRAS Status: 21 CFR 184.1011

EEC* Nomenclature: E400

100:

Sodium Alginate

Affirmed GRAS Status: 21 CFR 184.1724

EEC Nomenclature: E401

200:

Potassium Alginate

Affirmed GRAS Status: 21 CFR 184.1610

EEC Nomenclature: E402

300:

Ammonium Alginate

Affirmed GRAS Status: 21 CFR 184.1133

EEC Nomenclature: E403

400:

Calcium Alginate

Affirmed GRAS Status: 21 CFR 184.1187

EEC Nomenclature: E404

600:

Magnesium Alginate

900:

Special Blends

* Valid for SOBALG FD Group

HART PRODUCTS CORP.: Textile Chemical Guide:

DEFOAMER MLS:

- Anti-foam
- Non-silicone, Fatty Ester Blend
- All Fibers

DEFOAMER S Series:

- Anti-foam
- Silicone dispersions
- All Fibers

ANTISTAT A:

- Anti-Stat
- Complex nitrogenous condensates
- Acetate, acrylic, polyester, nylon

ANTISTAT N:

- Anti-Stat
- Quaternary Ammonium Compound
- Acetate, acrylic, polyester, nylon

ANTISTAT T:

- Anti-Stat
- Phosphate Ester
- Cotton, Rayon, Acetate, Wool, Acrylic, Polyester

FINISH 1682:

- Anticurl
- Plasticized modified gum
- Cotton, Rayon, Acetate

FINISH CL-1M:

- Anticurl
- Plasticized gum
- Cotton, Rayon, Acetate

NON-SLIP DF Conc.:

- Antislip
- Compounded Rosin based Soaps
- Cotton, Rayon, Acetate

BLEACH ASSIST C:

- Bleach Assistant
- Corrosion Inhibitor & Fume Suppressant
- Cotton, Rayon, Acrylic, Polyester

TERGENOL S:

- Bleach Assistant
- Bleaching Assistant for Sodium Chlorite

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):**KALEX 80:**

Bleach Assistant
Polyamino Carboxylic Acid
Cotton, Rayon, Acetate, Acrylic, Polyester

BRIGHTENER PE:

Brightener
Complex organic condensate
Polyester

Dye Carriers:**DYCAR J:**

Polyester Pressure Dyeing
Polyester

DYCAR NAP:

Space Dyeing Accelerant
Polyester, Nylon

DYCAR DPM:

Low-odor Biodegradable
Polyester

DYCAR IND:

Polyester Pressure Dyeing
Polyester

DYCAR PCE:

Perchloroethylene based Carrier
Polyester

DYCAR MP:

Carrier for Nomex & Qiana
Polyester, Nylon

DYCAR ECY:

Pressure/Non-Pressure Dyeing
Polyester

REGINOL COM:

Compatibilizer
Complex organic compound
Polyester, Nylon

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):

Detergents:

REGINOL 2942:

Modified Non-ionic compound
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTOPONS:

Non ionic detergents
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

ALKYLENE Series:

Phosphate Esters
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

TERGENOLS:

Fatty Taurates
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HYMOLONS:

Fatty Acid Amides
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTOFOLS:

Sodium Alkyl Aryl Sulfonates
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTENOL:

Sodium Lauryl Sulfate
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTERGE LFD:

Non ionic Detergent
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

CARBANONES:

Anionic
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTOX DMCD:

Amine Oxide (Non-Rewetting)
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTENOL 222:

Non-Foaming Non ionic
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):**REGINOL DIS:**

Dispersing Agent
Modified Naphthalene condensate
Cotton, Rayon, Polyester, Nylon

HARTOFIX CP:

Dye Fixative
Cationic nitrogeneous resin
Cotton, Rayon

HARTOFIX NC:

Dye Fixative
Modified Naphthalene condensate
Cotton, Rayon, Nylon

DULLER 1473:

Duller
Titanium dioxide dispersion
Cotton, Rayon

ALKYLENE 306 & TD 1000:

Emulsifier
Phosphate Esters

HARTEX V-66:

Emulsifier
Sulfated oil

EMULSIFIER 338, 449:

Emulsifier
Blends for Carrier Formulations
Nylon

HARTERGE MRS Conc.:

Equipment Cleaner
Blended Surfactants

FINISH BB:

Flame Proofing
Semi durable, Inorganic-Organic Complex
Cotton, Rayon, Acetate

HARTAMIDE AD:

Foaming Agent
Alkanolamide
All Fibers

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):

HARTOFUME C:

Gas Fading Inhibitor
Complex aromatic amine
Rayon, Acetate

TERGENOL SPV, SPV-5:

Soaping Off Agents
Synthetic detergents with Protective colloid for print
washing
All Fibers

MAGICOL HBB:

Spot Remover
Solvent & Soap blend
Cotton, Rayon, Acetate

HARTUWET SS:

Water Repellents
Silicone-based water repellent system
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

TRUKON JP:

Water Repellents
Zirconium/wax emulsion blend
Cotton, Rayon, Acetate

DUOFOL AS:

Wetting & Re-wetting
Sulfonated Ester
Cotton, Rayon, Acetate

PENETRONS:

Wetting & Re-wetting
Dioctyl Sulfosuccinate Salts
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTORESIN ACN:

Resin
Acrylic polymer
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTORESIN B:

Resin
U-F resin
Cotton, Rayon, Acetate, Nylon

HARTORESIN NV:

Resin
PVA emulsion
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):**HARTORESIN LF:**

Shrinkage Control
Modified U-F resin
Cotton, Rayon, Acetate, Polyester

HARTORESIN BLF:

Shrinkage Control
Low Free Formaldehyde U-F resin
Cotton, Rayon, Acetate, Polyester

FINISH GR-5:

Shrinkage Control
Glyoxal Resin
Cotton, Rayon, Acetate, Polyester

ALKYLENE 306:

Kier Boiling Assistants
Phosphate Esters
Cotton, Rayon

ALKYLENE TD-350, 650, 1000:

Kier Boiling Assistants
Complex Phosphate Esters
Cotton, Rayon

TERGENOL G, GD & S:

Kier Boiling Assistants
Sodium-N-Methyl Taurate derivatives
Cotton, Rayon

DUOFOL AS:

Leveling Agent
Sulfated Esters
Cotton, Rayon

REGINOL 125:

Leveling Agent
Modified Non ionic blend
Cotton, Rayon

REGINOL 246:

Leveling Agent
Modified Non ionic Fatty Amide Blend
Nylon

REGINOL AN:

Leveling Agent
Organic condensate
Cotton, Rayon, Acrylic, Polyester, Nylon

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):

DYEASSIST 2752:

Leveling Agent
Quaternary Ammonium Compound
Cotton, Rayon, Nylon

HARTOCONE Series:

Lubricants
Self Emulsifying Synthetic Oils
Rayon, Acrylic, Polyester, Nylon

RAYONOL 1636 B:

Lubricants
Paraffinic blends
Cotton, Rayon

SILICONE Lubricants:

Lubricants
Silicone emulsion
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

SYNTHRO SOFTENER C:

Lubricants
Fatty amide condensate
Acrylic, Polyester, Nylon

HARTOMERSE EH:

Mercerizing
Blended Surfactants
Cotton

DUOFOLS:

Penetrant
Sulfated Ester
Cotton, Rayon

HARTOFOLS:

Penetrant
Sodium Alkylaryl Sulfonates
Cotton, Rayon

PENETRONS:

Penetrant
Sulfosuccinates
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

ALKYLENE Series:

Penetrant
Phosphate Esters
Cotton, Rayon, Polyester, Nylon

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):**RETARDER A:**

Retarder
Quaternary Ammonium Compound
Acrylic, Polyester, Nylon

RETARDER N:

Retarder
Quaternary Ammonium Compound
Acrylic, Polyester, Nylon

KALEX SGH-50:

Sequestrant
Polyhydrocarboxylic Acid Salt
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

KALEX, KALEX 100:

Sequestrant
Ethylene Diamine Tetra Acetic Acid Salts
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

KALEX IR:

Sequestrant
Polyamino carboxylic salt
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

KALEX D Series:

Sequestrant
Organic Phosphonate Derivatives
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

KALEX 80, 120:

Sequestrants
Polyamino Carboxylic Acid Salts
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

HARTOPEN 2234:

Soaps
Blend of Pine Oil & Red Oil Soaps
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

ANALON:

Softener
Fatty amino condensates
Cotton, Rayon, Acetate, Wool

HARTEX H-23:

Softener
Sulfated oils
Cotton, Rayon, Acetate, Wool

HART PRODUCTS CORP.: Textile Chemical Guide(Continued):

SOFTEX BTL:

Softener
Non ionic Synthetic Wax emulsion
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

SOFTOLENE PB:

Softener
Non ionic Polyethylene emulsion
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

SOFTYNE NI:

Softener
Non ionic Fatty Acid condensate
Cotton, Rayon, Acetate, Wool, Acrylic, Polyester, Nylon

SOFTYNE H:

Softener
Cationic Amido-Amine complex
Acrylic, Polyester, Nylon

SOFTYNE CK:

Softener
High Performance Cationic Complex
Acrylic, Polyester, Nylon

HARTOSOLVE OL:

Solvent Scour
Pre-emulsified Solvent blend
Equipment Cleaner

SOLVOLENE E:

Solvent Scour
Pre-emulsified Solvent blend
Cotton, Rayon, Acrylic, Polyester

FINISH 2720:

Weighters
Blend of Polymeric Alcohols
Cotton, Rayon, Acetate, Polyester, Nylon

HENKEL CORP.: Chemical Specialties for Textiles:**Yarn Lubricants:****Coning Oils:****STANTEX 418:**

Non-mineral coning oil for filament and spun yarns. Excellent lubricity and antistatic properties.

STANTEX 5187:

Low sling, low viscosity coning oil for use on high speed texturing machines.

STANTEX 5193:

Effective coning oil designed for use on low denier nylon and polyester yarns.

STANTEX 5256:

Low sling, antistatic coning oil for high speed backwinding of package-dyed polyester.

STANTEX 5266:

Low sling, low viscosity coning oil for use on high speed texturing of nylon fiber.

STANTEX 5267:

Low sling, low viscosity fluorescent coning oil. Imparts a super-white fluorescent effect on nylon.

STANTEX 5270:

Effective, low viscosity coning oil for use on all deniers of polyester yarns. Provides good oil pickup at lower oil roll speeds, reducing sling-off.

STANTEX 5271:

Low sling coning oil for nylon and polyester yarns.

STANTEX 5273:

Low sling, low viscosity coning oil for use on high speed texturing of polyester. Good oil pickup.

STANTEX 5276:

Low sling, low viscosity antistatic coning oil for use on high speed texturing of nylon.

STANTEX 5278-A:

Low sling, low viscosity antistatic coning oil for high speed texturing of polyester. Good beaming oil.

STANTEX 5283:

Low viscosity, high pickup coning oil for use on nylon processed at moderate speeds.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Yarn Lubricants(Continued):

Coning Oils(Continued):

STANTEX 5289:

Low sling, low viscosity antistatic coning oil for use on nylon and polyester. Reduces picking of nylon hose after knitting and dyeing.

STANTEX 5292:

Low sling, low viscosity coning oil for use on high speed texturing of nylon fiber.

STANTEX 5294:

Low sling, low viscosity coning oil for use on high speed texturing of nylon fiber.

STANTEX CH-129:

Antistatic coning oil for use on nylon and polyester filament yarns. Most effective on carpet yarns.

STANTEX FL-5189:

Low viscosity, high pickup fluorescent coning oil for use on nylon filament yarns.

STANTEX FL-5208:

Low viscosity, high pickup fluorescent coning oil for use on nylon filament yarns.

STANTEX NSP-856:

Non-mineral oil coning oil for use for use on nylon and polyester yarns. Most effective on nylon stretch yarns that are subsequently knitted into apparel containing rubber yarn.

Winding Lubricants:

NOPCOSTAT NTL:

Wet winding lubricant for nylon and polyester carpet yarns. Enhances moisture regain after heatsetting.

NOPCOSTAT WPL-1:

Water soluble, concentrated wet winding lubricant for apparel yarns. Provides lubricity with easy cleanup of machinery.

STANTEX 233:

Wet winding lubricant for polyester/cotton and 100% cotton yarns. Provides very low friction.

STANTEX 251:

Wet winding lubricant for acrylic yarns. Has no adverse effect on soft hand.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Yarn Lubricants:****Winding Lubricants(Continued):****STANTEX 258:**

Wet winding lubricant for 100% cotton and blends. Imparts super-low friction to wet and dry yarns.

STANTEX WE-250:

Low friction, non-silicone wax emulsion for natural and synthetic yarns, spun and filament.

STANTEX WE-263:

Concentrated wet winding lubricant for natural and synthetic yarns. Provides excellent lubricity and emulsion roll coverage.

STANTEX WE-5257:

Wet winding lubricant for use on natural and synthetic yarns, spun and filament.

STANTEX WE-567:

Wet winding lubricant for natural and synthetic spun yarns. Imparts very low friction.

Oversprays:**NOPCOSTAT 2152-P:**

Versatile antistatic lubricant for use on all types of staple fiber. Most effective on carpet staple and fine denier short staple.

NOPCOSTAT 668:

Lubricant for synthetic and natural staple fiber. Imparts softness to harsh or high crimp staple.

NOPCOSTAT 762:

Thermally stable, antistatic lubricant for synthetic and natural fibers and blends. Effective on carpet yarns processed on continuous heatset systems.

NOPCOSTAT HS:

Thermally stable, nonionic antistat for use on all types of filament and staple fiber.

NOPCOSTAT LV-40:

Antistatic lubricant for use on acrylic, polyester and wool/polyester staple blends. Effective on top and stock dyed polyester and acrylic.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Oversprays(Continued):

NOPCOSTAT PE-47:

Anionic antistat; provides static protection with good fiber-to-fiber lubricity.

SELBANA 2001:

Non-yellowing lubricant for all spinning systems. Provides excellent stick-slip properties to treated fibers.

STANCARD 5219:

Cotton lubricant; effectively reduces cotton dust.

STANTEX 5247:

Excellent tufting lubricant for space-dyed yarns.

Special Lubricants:

NOPCO 1111:

Lubricant for warp sizing to improve weaving performance.

NOPCOSTAT 1056-A:

Antistatic lubricant for spun knitting yarns. Also an effective lubricant for polyester/cotton filling yarns.

NOPCOSTAT 668:

Size lubricant for high-twist polyester yarns.

STANTEX 211:

Super-low friction thread lubricant for polyester. Neat oil that mimics performance of last rinse lubricants.

STANTEX 220:

Low sling sewing thread lubricant for filament polyester. Designed for high speed sewing of heavy weight fabric.

STANTEX 5251:

Sewing thread lubricant for all types and deniers of filament and spun thread.

STANTEX 5282:

Economical, non-silicone sewing thread lubricant for filament polyester.

STANTEX CAL:

Low sling sewing thread lubricant for filament polyester.

STANTEX WGHT 4445:

Weighter for cotton and polyester/cotton goods. Effective without adversely affecting hand.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Wet Processing:****Preparation/Wetting:****COTTOCLARIN OK:**

Anionic wetting agent for use in bleaching, enzyme desizing, rope or open-width scouring.

HYONIC OP-55:

Nonionic wetting agent/detergent for desizing.

SECURON 540:

Chelating agent for complexing calcium and iron during high alkaline/temperature bleaching. Prevents silicate buildup on equipment.

STANDAPOL 617:

Organic stabilizer for peroxide for use in batch and continuous bleaching. Replaces sodium silicate.

STANDAPON 95:

Nonionic wetting agent/detergent for cellulosic and synthetic fibers and fabrics.

STANTEX 422:

Anionic wetting agent for high temperature/alkaline scouring.

STANTEX PEN 40-DF:

Anionic wetting/rewetting agent for bleaching and scouring.

STANTEX T-14DF:

Anionic wetting/rewetting agent for bleaching and scouring.

SYNTERGENT TER-1:

Anionic wetting agent/penetrant for cotton and polyester/cotton goods. Premier wetter in indigo dyeing.

Scouring Agents:**HYONIC OP-55:**

Nonionic detergent for use in mildly alkaline conditions.

STANDAPON 4149 Conc.:

Anionic scouring agent for continuous scouring, desizing, bleaching and post-dyeing.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Wet Processing(Continued):

Scouring Agents(Continued):

STANTEX 422:

Very effective anionic detergent for use in high temperature/alkaline scouring.

STANTEX MOR SPEC:

Anionic/solvent detergent for use in alkaline scouring and bleaching of cotton for removal of oils and waxes. Effective in enzyme desizing.

SYNTERGENT 55-A:

Alkaline fulling/scouring agent for wool fabrics and blends.

SYNTERGENT DMC:

Excellent machine cleaner for use on pressure dyeing machines. Dissolves polyester trimer and dye tars.

SYNTERGENT NLS:

Effective scouring agent and gas inhibitor for nylon/spandex fabrics.

Dispersants:

CHROMASIST 1487-A:

Effective liquid dispersant for disperse dyes. Minimizes dye agglomeration, eliminating dye specks and stains on dyed goods. Low pH product.

CHROMASIST 87-H:

Low salt liquid dispersant for disperse dyes. Minimizes dye agglomeration, eliminating dye specks and stains on dyed goods.

CHROMASIST CP:

Economical liquid dispersant for disperse dyes.

LOMAR D SOL'N:

High molecular weight liquid dispersant for disperse dyes. Minimizes dye agglomeration during high temperature dyeings.

LOMAR LS LIQ:

Low salt liquid dispersant for disperse dyes. Minimizes dye agglomeration during high temperature dyeings.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Wet Processing(Continued):****Dispersants(Continued):****LOMAR PL:**

Liquid dispersant for disperse dyes. Minimizes dye agglomeration during high temperature dyeings.

LOMAR PW:

Dispersant concentrate for use in disperse dyeing processes. Supplied in powder form.

NOPCOSPERSE 28-B:

Low foaming, nonionic dispersant for use in textile pigment applications.

STANSERSE 506:

Nonionic dispersant for use in dyebaths to improve stability of softeners to high salt concentrations.

Leveling Agents:**CHROMASIST KDL-1:**

Leveling agent for high temperature dyeing of polyester with disperse dyes. In many applications, will replace carrier.

CHROMASIST N-70:

Leveling agent for acid dyes on nylon carpet.

RETARDINE:

Leveling agent/retarder for direct, sulfur and vat dyes on cellulosics.

STANLEV R-276:

Leveling agent for acid and disperse dyes on nylon. Effective in beck dyeing of carpets, hosiery and knit goods.

Antimigrants:**SUPERCLEAR 100-N:**

Natural gum antimigrant for continuous dyeing of cotton and polyester/cotton with disperse, reactive, vat, naphthol and sulfur dyes as well as pigments.

SUPERCLEAR 320-N:

Antimigrant for thermosol processes using pigments and dyes on cotton and polyester/cotton fabrics.

SUPERCLEAR 80-N:

Natural gum antimigrant for continuous dyeing of cotton and polyester/cotton with disperse and cellulosic dyes.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Wet Processing(Continued):

Clearing/Stripping:

HYDROSULFITE AWC:

Excellent stripping agent for acid dyed nylon and wool. Reducing agent used in discharge printing. Sodium formaldehyde sulfoxylate.

HYDRO OF SODA CONC.:

Reducing and stripping agent for dyed goods. Sodium hydro-sulfite.

PAROLITE:

Powerful stripping agent for nylon and wool goods. Zinc formaldehyde sulfoxylate.

POLYCLEAR:

Clearing agent for dyed goods. Removes loose dye and improves colorfastness of nylon, polyester and polyester/cotton goods.

POLYCLEAR 32-F:

Clearing agent for dyed polyester and polyester/cotton goods.

POLYCLEAR MAB:

Clearing agent for dyed acetate, triacetate and wool. Effective machine cleaner.

POLYCLEAR NPH:

Clearing agent for dyed polyester. Neutral pH product. Effective on scatter rugs without discoloring backing.

Defoamers:

DEFOAMER 267-A:

Nonsilicone defoamer for use in high temperature pressure dyeing of polyester.

DEFOAMER DF-160-L:

Defoamer for use with synthetic latex systems.

DEFOAMER NDW:

Defoamer for printing processes. Effective in latex and acrylic coating systems.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Wet Processing(Continued):****Defoamers(Continued):****DEFOAMER NXZ:**

Defoamer for use in many textile applications. Primarily for latex and coating processes.

FOAMASTER 340:

Excellent nonsilicone defoamer for high temperature pressure dyeing processes. Effectively controls foam throughout the entire polyester dyeing cycle.

FOAMASTER 371-S:

Defoamer for atmospheric and pressure dyeing processes. Effective in printing systems.

FOAMASTER AP:

Defoamer for pigment padding and printing.

FOAMASTER DF-361-S:

Defoamer for atmospheric and pressure dyeing. Effectively controls foam in effluent systems.

Fixatives:**CHROMASET DF-100:**

Fixative for indigo dyeing of denim. Effectively retains dark shades with minimal staining.

CHROMASET DF-110:

Economical fixative for indigo dyeing of denim.

CHROMASET DXC:

Fixative for direct dyes on cellulosics. Imparts excellent washfastness via pad or exhaust application.

CHROMASET F-7M:

Effective fixative for acid dyes on nylon. Provides excellent washfastness. Low pH product.

CHROMASET F-8M:

Effective fixative for acid dyes on nylon. Provides excellent washfastness. Neutral pH product.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Wet Processing(Continued):

Fixatives(Continued):

CHROMASET F-10M:

Fixative for acid dyes on nylon or wool. Very low free phenol/formaldehyde content. Effective reserve for direct dyes in nylon/cellulosic dyeing.

CHROMASET FRF:

Fixative for fiber reactive dyes on cellulosics.

CHROMASIST R-2:

Reserve for direct dyes on nylon when dyeing nylon/cellulosics. Fixative for acid dyes on nylon.

Softeners:

BELFASIN 2597 CR:

Cationic softener concentrate for use on all fibers. Imparts soft, smooth hand and is easily dispersible in hot water.

BELFASIN 320 CR:

Cationic softener concentrate for use on all fibers. Imparts soft, smooth hand and is easily dispersible in hot water.

BELFASIN 84 CR:

Excellent cationic softener concentrate for use on acrylics to impart a super-soft hand to harsh fiber.

BELFASIN EL:

Nonionic softener and lubricant for cotton and polyester/cotton yarns and fabrics.

BELFASIN LB:

Nonyellowing cationic softener and lubricant for use on all fibers.

BELFASIN SG:

Nonyellowing cationic softener and lubricant for use on all fibers.

BELFASIN SI:

Cationic softener for cotton and polyester/cotton. Provides a smooth, slick hand.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Wet Processing(Continued):****Softeners(Continued):****STANDAFIN U-17:**

Softener for cellulosic and synthetic fabrics.

STANSOFT 200:

Nonionic softener for cellulosic and synthetic goods.

STANSOFT 2597:

Cationic softener for all types of fibers.

STANSOFT 320:

Cationic softener for all types of fibers.

STANSOFT 601:

Nonionic softener for use on cotton and polyester/cotton towel and knit goods.

STANSOFT 618:

Anionic softener/lubricant for packaged-dyed cotton.

STANSOFT 722:

Nonyellowing cationic softener for cotton and polyester/cotton towels.

STANSOFT DS:

Cationic softener for cotton and polyester/cotton denim fabrics.

STANSOFT P-4052:

Nonionic softener concentrate in liquid form. Imparts soft hand and good absorbency to cotton and polyester/cotton fabrics.

STANTEX SA:

Softener/antistat for dyed rayon and nylon goods.

Last-Rinse Lubricants:**BELFASIN EL:**

Nonionic lubricant for cotton and polyester/cotton yarns and fabrics.

BELFASIN SG:

Cationic lubricant for use in jet application in the last rinse. Low foaming.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):

Wet Processing(Continued):

Last-Rinse Lubricants(Continued):

NOPCOSTAT 668:

Nonionic lubricant for use in package and stock dyeing.

STANDAFIN 4442:

Cationic needle-cutting lubricant for cotton and polyester/cotton fabrics.

STANDAFIN HCP:

Nonyellowing, cationic needle-cutting lubricant for cotton and polyester/cotton fabrics.

STANSOFT 84:

Cationic lubricant for acrylic staple, yarn and knitgoods. Effective in jet dyeing processes.

Napping Lubricants:

BELFASIN EL:

Nonionic napping lubricant for cotton and polyester/cotton fabrics.

BELFASIN LB:

Nonyellowing, cationic napping lubricant for cotton and polyester/cotton fabrics.

BELFASIN SG:

Excellent cationic napping lubricant for all fibers. Reduces number of passes needed through the napper.

STANSOFT 320:

Cationic napping lubricant for cotton and polyester/cotton fabrics.

STANSOFT 84:

Cationic napping lubricant for acrylic fabrics.

HENKEL CORP.: Chemical Specialties for Textiles(Continued):**Wet Processing(Continued):****Finishing Chemicals:****STANDAFIN 4442:**

Resin finishing softener for cotton and polyester/cotton fabrics. Improves tear strength and crease recovery.

STANDAFIN HCP:

Resin finishing softener for cotton and polyester/cotton fabrics. Improves tear strength and crease recovery.

STANDAFIN U-17:

Resin finishing softener for cotton and polyester/cotton fabrics. Improves tear strength, crease recovery and abrasion resistance.

Miscellaneous:**POLYQUART H:**

Durable antistat for nylon and other synthetic fibers blended with containing cellulose.

PROVENTIN 7:

Antioxidant for nylon fabrics. Prevents yellowing during peroxide bleaching of nylon.

REPELLEN 80:

Durable water repellent for nylon and polyester. Provides soft hand, reduced pilling and excellent sewability to treated goods.

STANTEX 466-A:

Durable finish for cotton and polyester/cotton fabrics. Imparts antisoil redeposition properties.

HENKEL CORP.: BELFASIN SG:

Unique mild cationic softener and lubricant for application to a wide variety of yarns and fabrics.

Low-foaming, can be used on all types of application equipment, including jets.

Typical Properties:

Type of Product: Dispersion of high molecular hydrocarbons and lubricants

Appearance: Milky white liquid

Solubility: Readily dispersible in cold or warm water

pH (1.0% solution): 4.0+/-0.5

Areas of Application:

Yarn:

Last rinse lubricant and softener for cotton, polyester/cotton rayon, acrylic and polyester/acrylic knitting yarns.

- * Non-yellowing, especially effective on bleached whites and pastel shades.
- * Greatly improves knitting properties of yarn by reducing fiber/metal friction by 50-60% in many cases.

Last rinse lubricant for spun and texturized polyester yarn for sewing thread.

- * Provides very low fiber/metal friction base for over-oiling with sewing thread finishes.

Knit-deknit and tufting lubricant for space dyed nylon carpet yarn.

- * Does not promote soiling.
- * Compatible with fluorochemical finishes.

Fabrics:

Non-yellowing softener for bleached white and pastel dyed cotton, polyester/cotton and acrylic/cotton knit goods.

- * Excellent napping softener and lubricant for cotton, polyester/cotton, acrylic and cotton/acrylic knit goods. Reduces number of passes through napper.

- * Greatly improves sewability of resin treated goods, especially those made from rotor-spun yarns.

- * In many cases, the fastness of disperse colors on resin treated polyester/cotton goods is greatly improved.

Superior softener and napping lubricant for polyester, nylon and acetate knit goods going into lingerie or automotive areas.

- * Does not promote crocking or bleeding of disperse colors.
- * Does not cause stiffening of fabric during heat setting.
- * Not detrimental to light fastness of disperse colors on automotive fabrics.
- * Does not promote flammability of automotive fabric.

Lubricant for prevention of crease marks in beck dyeing of carpets.

HENKEL CORP.: STANSOFT 601:

Softener that imparts excellent softness and sewability without affecting the absorbency, whiteness or shades of the finished goods. For use on terry towel and knit goods.

Composition:

A blend of nonionic softeners and fatty derivatives

Typical Analysis:

Appearance: Milky, free flowing liquid

Activity @ 25C: 20%

Viscosity @ 25C: 100 - 300 cps

pH (1% solution @ 25C): 4.0 - 5.0

Specific Gravity: 1.010

Pour Point: 32F

Flash Point (ASTM D56-70): >200F

Properties:

1. Excellent whiteness with no yellowing tendencies when subjected to heat and ageing.
2. Imparts a soft, full, lofty hand without the greasy feel.
3. Gives excellent wick-up and absorbency after finishing.
4. Absence of odor and odor development during storage of goods.
5. Gives bright, clear prints on terry towels without color flash through.
6. Can be stored in a bulk tank and mixed at room temperature.
7. Excellent sewing aid to finished goods.

Application:

As a finish for 100% cotton and cotton/synthetic blends of terry toweling

- A. Double open-width mangle
- B. As a spray on damp toweling
- C. Kiss roll applications

As a finish for 100% cotton and polyester/cotton knits

HENKEL CORP.: STANSOFT 2597 Softener:

For softening all types of textile fibers

Typical Analysis:

Appearance: Soft white paste
pH (1.0% solution): 4.5
Solubility: Soluble in warm water
Ionic Nature: Cationic

Properties:

STANSOFT 2597 can be applied to practically all textile fibers and imparts a soft, smooth, slick and full hand. This product is stable with most auxiliaries normally used in the textile industry. STANSOFT 2597 may be applied by exhaustion from a long bath, padding on a solution from a short bath, or by spraying on the surface of wet goods. Due to the special chemical composition of STANSOFT 2597, the product will impart excellent softening effects to polyester/cotton blends and polyester.

Areas of Application:

1. As a softener in the last rinse of batch dyeing processes.
Add 2.0-3.0% STANSOFT 2597 based on the weight of the goods - run 15 minutes at 120F - Drop - Unload.
2. As a top softener by pad application
Use a 2.0 to 4.0% solution of STANSOFT 2597 with a 60% wet pickup and dry. If the wet pickup is less than 60%, increase the concentration of the bath to give a 0.5% to 1.0% of STANSOFT 2597 on the goods.
3. Spray application
Spray on a 6.0% solution of STANSOFT 2597 on wet goods and pass through a mangle to make the application even, then dry.

HENKEL CORP.: STANSOFT 300:

Nonionic softening agent

Composition: Fatty acid derivative

Typical Analysis:

Activity: 15%+-0.5%

Appearance: White, dispersed liquid

Solubility: Miscible with water at all concentrations

Ionic Nature: Nonionic

pH (1% solution): 3.5 to 4.5

Properties:

STANSOFT 300 has been designed to give the following properties:

- * Easily handled, due to its liquid consistency
- * Stable to hard water, as well as to concentrations of acids and alkalis normally present
- * STANSOFT 300 is compatible with all types of optical brightening agents and with dyestuffs of all classes
- * Non-yellowing, even at high drying temperature
- * Gives excellent softening effects on cellulosic and their blends and on all synthetic fibers with the exception of acrylics
- * STANSOFT 300 can be used in dyeing and bleaching baths as a softener and crease inhibitor and as a softener in finishing baths
- * The product can be applied in all types of machinery and is also suitable for stock solutions in metering systems

Application Levels:

By Exhaustion: 0.5 - 2.0 g/l STANSOFT 300

By Padding: 50 - 150 g/l STANSOFT 300

By Foaming: 150 - 250 g/l STANSOFT 300

HENKEL CORP.: STANTEX WEIGHTER 4445:

Description:

Blend of nonionic components and carbohydrates

End-Use:

STANTEX WEIGHTER 4445 is applied to cotton or cotton/synthetic blend knits and wovens to add (1-5%) to fabrics sold by the pound instead of the yard. It is especially suited for commission finishers.

Ionic Nature: Nonionic

Appearance: Light brown liquid with slight haze

Solubility: Soluble in water in all proportions

Properties:

- * Compatible with resin finishing baths
- * Compatible with cationic, anionic, and nonionic softeners or wetting agents
- * Imparts weight to fabrics without effecting the fabric hand, durable press resin or dye shade
- * Does not rub off fabric
- * Provides a very soft hand to fabrics even at high add-ons
- * Reduces formaldehyde odor when applied with typical durable press resins

Application Methods:

STANTEX WEIGHTER 4445 should be stirred before adding it to the pad bath or finish make-up tank. It should be added to the finish liquor at a charge of 5 to 10 weight percent depending upon the fabric weight gain desired.

STANTEX WEIGHTER 4445 is normally applied to fabric from the durable press resin bath along with the fabric softeners. It does not interfere with the resin treatment and is compatible with all resin systems.

STANTEX WEIGHTER 4445 can be applied to fabrics using foam application techniques. It can be applied along with durable press resin and softener or as a single application. STANTEX WEIGHTER 4445 is easily foamed using conventional foaming agents suitable for low liquor applications.

Fields of Application:

STANTEX WEIGHTER 4445 can be used on light weight as well as heavy weight fabrics.

- * Suitable for cotton and cotton/polyester knits
- * Suitable for denim
- * Suitable for sheets, towels, and bottom weight fabrics

HENKEL CORP.: Textile Chemicals:**BELFASIN 84 Liquid:**

Cationic softener and antistat for acrylic fibers, yarn, knitgoods and nylon carpet.

Typical Properties:

Appearance: Creamy white liquid

% Activity: 14.0

pH (1.0% solution): 4.5-5.0

Solubility: Readily dispersible in warm or cold water

Stability: Stable in baths containing up to 5 g/l Glauber's salt

Advantages:

- * Dyebath or last rinse softener for acrylic staple fiber, yarn and knitgoods. Can be applied in jet dyers. Excellent napping lubricant.
- * Especially effective as softener and lubricant when applied in dyebath to acrylic staple fiber that is to be made into yarn on open-end spinning equipment.
- * Gives very soft hand to nylon carpet. Can be applied in last rinse of dyebath or by spraying. Minimal effect on light fastness and crocking of dyeshades.
- * When combined with STANSOFT 2597 in equal parts, an excellent softener and napping aid for acrylic/cotton blend knitgoods.

Recommendations:

- * In dyebath on acrylic staple, yarn and knitgoods, 0.5 - 2.0% o.w.g. BELFASIN 84 Liquid is used.
- * As last rinse softener for acrylics, 1 - 3.0% o.w.g. BELFASIN 84 Liquid is used. Run for 10-15 minutes at 100-110F.
- * On nylon carpet, 1 - 2.0% o.w.g. is applied in the dye beck at 100 - 110F. Run for 10-15 minutes at pH of 4 - 5. For spray application, 1.0% o.w. of carpet is recommended. Apply from a 5/1 - 10/1 dilution.

HENKEL CORP.: Textile Chemicals(Continued):

BELFASIN EL:

Unique nonionic softener and lubricant for application to natural and synthetic yarns and fabrics.

Typical Properties:

Type of Product: Dispersion of high molecular hydrocarbons and lubricants

Appearance: Milky white liquid

Solubility: Readily dispersible in cold or warm water

pH (1% solution): 7.0-7.5

Areas of Application:

Yarn

Last rinse lubricant and softener for cotton, polyester/cotton, acrylic and polyester/acrylic yarns.

- * Non-yellowing, especially effective on bleached whites and pastel shades
- * Greatly improves knitting properties of yarn by reducing fiber to metal friction by as much as 40-50% in many cases.

Fabric:

Non-yellowing softener for bleached white and pastel dyed cotton and polyester/cotton knitgoods.

- * Excellent napping softener and lubricant. Reduces number of passes through napper.
- * Greatly improves sewability of resin treated goods, especially those made from open-end spun yarns.

Recommended Usage:

Yarn - All Fibers:

Spun yarns for knitting, 1.0 - 3.0% o.w. yarn BELFASIN EL. Recirculate at 120F for 20 minutes. A reverse flow cycle is recommended for optimum levelness, but also can be applied in one direction only.

Fabric - Cotton and Polyester/Cotton:

Apply by padding from a bath containing 30-50 g/l, depending upon whether goods are dry or wet. A typical application in a bath containing 120 g/l glyoxal resin would be 20-30 g/l of BELFASIN EL.

HENKEL CORP.: Textile Chemicals(Continued):**BELFASIN SI:**

Cationic, silicone softener for cotton and polyester/cotton yarns and fabrics.

Typical Analysis:

Appearance: Milky, white liquid
pH (1.0% solution): 4.5
Solubility: Soluble in warm or cold water
Ionic Nature: Cationic

Properties:

BELFASIN SI can be applied to practically all textile fibers and imparts a soft, smooth, slick and full hand. This product is stable with most auxiliaries normally used in the textile industry. BELFASIN SI may be applied by exhaustion from a long bath, padding on a solution from a short bath, or by spraying on the surface of wet goods. Due to the special chemical composition of BELFASIN SI, the product will impart excellent softening effects to polyester/cotton blends and polyester.

STANDAFIN U-17:

Softener for synthetics and synthetic/natural blends

Composition:

Polyethylene emulsion

Typical Analysis:

Appearance: Milky, slightly translucent liquid
Activity: 22%
Ionic Nature: Nonionic
pH (1% solution): 9.0
Solubility: Readily soluble in hot or cold water

Properties:

When STANDAFIN U-17 is used as a pure finish or in combination with thermosetting resins, a soft silky hand is imparted to the goods with excellent whiteness properties. STANDAFIN U-17 upgrades the tear, tensile abrasion resistance, and crease recovery of resin treated goods in addition to imparting good sewability. Due to its nonionic nature, STANDAFIN U-17 is compatible with a wide range of finishing agents including optical brighteners and heavy metal salt catalysts.

Areas of Application:

STANDAFIN U-17 is an all-purpose softener and finishing agent for cellulosics, synthetics or blends of synthetics. A level of 2%-4% on a solution basis is recommended in the following finishing operations:

1. With thermosetting resins or reactive finishes
2. With starch or other non-resin finishes
3. As a top softener and lubricant
4. As a plain finish for cellulosics

HENKEL CORP.: EMERY GROUP: EMEREST Glycerol Esters:

EMEREST Glycerol Esters are based on fatty acids. In the leather and textile industries, they are used as components in lubricants, softeners, and dye carriers, and as co-emulsifiers for synthetic fiber spin finishes. Industrial applications include uses as lubricants, rust preventatives, and mold release agents.

EMEREST 2400 Glycerol Monostearate:

Is used as a component in hand creams and other cosmetic formulations. This versatile ester is also a component for industrial lubricants and lubricant softeners for textiles.

HLB: 3.9

Form @ 25C: Solid M.P. 58

Viscosity cSt 100F: Solid

EMEREST 2401 Glycerol Monostearate:

Is the technical grade of EMEREST 2400 having similar properties and functions. This product is not recommended for applications where color is a critical parameter.

HLB: 3.9

Form: Solid M.P. 58

Viscosity cSt 100F: Solid

EMEREST 2407 Glycerol Monostearate, SE:

Differs from the two previous products with respect to acid value. EMEREST 2407 has an acid value of approximately 20, and is self-emulsifying. It is used in various cosmetic creams and lotions.

HLB: 5.1

Form @ 25C: Solid M.P. 58

Viscosity cSt 100F: Solid

EMEREST 2410 Glycerol Monoisostearate:

Is a liquid ester derived from isostearic acid that exhibits excellent oxidation and color stability. It has unique emollient, lubricating and w/o emulsification properties.

HLB: 2.9

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 260

HENKEL CORP.: EMERY GROUP: EMEREST Glycerol Esters(Continued):**EMEREST 2421 Glycerol Monooleate:**

Has a monoester content of 50-60%, free glycerol 1%, and moisture 1%, maximum. It is used as a component in mold release agents, a vehicle for agricultural insecticides, an anti-icing fuel additive, and a rust preventive additive for compounded oils. It is used in the textile industry as a lubricant component in synthetic fiber spin finishes.

HLB: 3.4

Form @ 25C: Liquid Pour Pt. 19

Viscosity cSt 100F: 91

EMEREST 2419 Glycerol Dioleate:

Can be used as a very low HLB emulsifier with high oil solubility. Applications in water-in-oil emulsions or industrial lubricants are suggested.

HLB: 1.6

Form @ 25C: Liquid Pour Pt. <0

Viscosity cSt 100F: 55

EMEREST 2423 Glycerol Trioleate (GTO):

Is sometimes called synthetic olive oil. When emulsified, it is an excellent lubricant for metals, leather and textiles. Sulfated GTO is used as a softener in the leather and textile industries.

HLB: 0.6

Form @ 25C: Liquid Pour Pt. 9

Viscosity cSt 100F: 43

EMEREST 2452 Triglycerol Diisostearate:

Is an excellent solvent for dyes and pigments with improved oxidative stability. It can be directly substituted for castor oil to wet pigment more rapidly for faster dispersions.

HLB: 6.7

Form @ 25C: Liquid Pour Pt. 4

Viscosity cSt 100F: 990

HENKEL CORP.: EMERY GROUP: EMSORB Ethoxylated Sorbitan Esters:

The EMSORB Ethoxylated Sorbitan Esters are hydrophilic surfactants that are frequently used as emulsifiers in blends with the unethoxylated lipophilic esters from which they were derived, i.e., with the EMSORB Sorbitan Fatty Acid Esters. Products of this group also function as lubricants, color dispersants, solubilizers, and plasticizers, in industrial, institutional and household specialty products. They are frequently used as the principal emulsifier for the emulsifiable industrial processing and finishing oils. Additionally, these type products are established as important textile chemicals where they are used as fiber antistats, fiber-yarn lube components, and as functional emulsifiers in fabric finishing softeners. The average composition of the ethoxylated sorbitan esters is designated by an abbreviated form of the chemical name in which POE denotes polyoxyethylene and the hydrophobic base is shown by digits in parentheses. For example, EMSORB 6900 POE (20) Sorbitan Monooleate contains 20 moles of oxyethylene per mole of hydrophobic base.

EMSORB 6900 POE (20) Sorbitan Monooleate:

A hydrophilic emulsifier, functions as a co-emulsifier for petroleum oils, fats, solvents and waxes in household products, industrial lubricants and textile dye carriers. It is also used as a dispersant for pigments in coatings, a solubilizer for oils and fragrances, and as an emulsifier for aliphatic alcohols in tobacco sucker control concentrates.

HLB: 15.0

Form @ 25C: Liquid Pour Pt. -12

Viscosity cSt 100F: 200

EMSORB 6901 POE (5) Sorbitan Monooleate:

An effective O/W emulsifier and lubricant, is used with mineral and vegetable oils in the formulation of industrial lubricants. Textile oils emulsified with EMSORB 6901 yield excellent lubricants and softeners for fibers and yarns.

HLB: 10.0

Form @ 25C: Liquid Pour Pt. -15

Viscosity cSt 100F: 210

EMSORB 6903 POE (20) Sorbitan Trioleate:

Is an oil in water emulsifier for petroleum oils, fats, waxes and alkyl esters. It is an excellent lubricant for metals, textiles, and leather, and is used as an emulsifier/lubricant in soluble oils for metal processing and finishing. EMSORB 6903 also serves as a lubricant and highly efficient emulsifier for oils used in textile processing and finishing, glass fiber lubricants, and automotive lubricant additives.

HLB: 11.1

Form @ 25C: Liquid Pour Pt. -15

Viscosity cSt 100F: 160

**HENKEL CORP.: EMERY GROUP: EMSORB Ethoxylated Sorbitan Esters
(Continued):****EMSORB 6917 POE (16) Sorbitan Trioleate:**

Is similar to EMSORB 6903 but is slightly less hydrophilic.

HLB: 10.0

Form @ 25C: Liquid Pour Pt. <-10

Viscosity cSt 100F: 122

EMSORB 6905 POE (20) Sorbitan Monostearate:

A waxy semi-solid, functions as an O/W emulsifier for mineral oil, fats, and waxes. It is a good fiber-to-metal textile lubricant and is used as a co-emulsifier with EMSORB 2505 in paraffin wax emulsions for textiles, paper and wallboard coatings. It is also used as an emulsifier in household products.

HLB: 15.2

Form @ 25C: Liquid Pour Pt. 25

Viscosity cSt 100F: 250

EMSORB 6906 POE (3) Sorbitan Monostearate:

Is a W/O emulsifier which is used in household formulations. It also functions as a fiber-to-metal lubricant for synthetic and cellulosic fibers and yarns.

HLB: 9.0

Form @ 25C: Solid M.P. 42

EMSORB 6908 POE (16) Sorbitan Tristearate:

Is a waxy O/W emulsifier for petroleum oils and natural fats. Because of its lubricating and softening properties, it is useful as a component in textile processing and finishing compounds. Its balanced oil and water solubility permit it to be used as a primary emulsifier.

HLB: 10.0

Form @ 25C: Solid M.P. 38

EMSORB 6909 POE (4) Sorbitan Monostearate:

Is a hydrophobic emulsifier which is a waxy solid at room temperature.

HLB: 4.0

Form @ 25C: Solid M.P. 35

EMSORB 6915 POE (20) Sorbitan Monolaurate:

Is a versatile O/W emulsifier and solubilizer of petroleum oils, solvents, and fats. High water solubility enhances its ability to solubilize petroleum solvents. In the textile industry it is used as an emulsifier for dye carriers, as an antistatic scrooping agent in primary spin finishes, and as a fiber processing aid.

HLB: 16.7

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 160

HENKEL CORP.: EMERY GROUP: EMSORB Sorbitan Fatty Acid Esters:

EMSORB Sorbitan Fatty Acid Esters are lipophilic emulsifiers and coupling agents serving as integral components of emulsifiable industrial mold release agents, textile fiber and yarn lubricants, and textile finishing softeners. They are widely used as surfactants and functional components in many kinds of industrial and household products.

These products are frequently used in conjunction with more hydrophilic emulsifiers, particularly their polyoxyethylene derivatives. When used alone or with other emulsifiers, they are very effective for the preparation of both W/O and O/W emulsions.

EMSORB 2500 Sorbitan Monooleate:

Is an oil soluble emulsifier, coupling agent, lubricant, and softener for textile fibers and leather. It can be used with water soluble emulsifiers in formulating clear emulsifiable concentrates of petroleum oils and waxes, natural fats and waxes, and alkyl esters. Small amounts will usually clarify (couple) such concentrates. EMSORB 2500 is also widely used in cosmetics and household products.

HLB: 4.6

Form @ 25C: Liquid Pour Pt. <0

Viscosity cSt 100F: 360

EMSORB 2502 Sorbitan Sesquioleate:

Is a primary emulsifier for water in oil systems and an effective co-emulsifier for oil in water systems for mineral oil, fats, and waxes. It is also a versatile coupling agent for water soluble materials in O/W systems. Suggested applications include its use as a W/O emulsifier for consumer household aerosols and as an O/W co-emulsifier for cosmetics, industrial oils and textile oils.

HLB: 4.5

Form @ 25C: Liquid Pour Pt. <0

Viscosity cSt 100F: 475

EMSORB 2503 Sorbitan Trioleate:

Is similar to EMSORB 2500, but is more hydrophobic. Its oil solubility makes it a very effective coupling agent and co-emulsifier for mineral oil. EMSORB 2503 is used in the processing and softening of textiles and leather.

HLB: 2.1

Form @ 25C: Liquid Pour Pt. <0

Viscosity cSt 100F: 100

HENKEL CORP.: EMERY GROUP: EMSORB Fatty Acid Esters(Continued):**EMSORB 2505 Sorbitan Monostearate:**

A hydrophobic emulsifier, is used to produce emulsions of mineral oils, fats, waxes and silicones. Suggested applications as a co-emulsifier include industrial oils, household products and cosmetics. Used in conjunction with EMSORB 6905 POE (20) Sorbitan Monostearate, this system finds application in paraffin wax emulsions and silicone defoamers for processing paper and textiles. As a textile lubricant, it helps reduce fiber-to-metal friction.

HLB: 5.2

Form @ 25C: Solid M.P. 50

EMSORB 2510 Sorbitan Monopalmitate:

An oil soluble waxy emulsifier, is used in cosmetic and household products and is a superior fiber-to-metal lubricant for synthetic and cellulosic fibers.

HLB: 6.5

Form @ 25C: Solid M.P. 47

EMSORB 2515 Sorbitan Monolaurate:

Is a water dispersible emulsifier which exhibits antifoam properties. Suggested uses include emulsifier systems for oils, fats, and solvents in household specialties, industrial oils, cosmetics and emulsion polymerization.

HLB: 8.0

Form @ 25C: Liquid Pour Pt. 15

Viscosity cSt 100F: 1000

EMSORB 2516 Sorbitan Monoisostearate:

Is an effective auxiliary emulsifier. It is almost odor-free and is very light in color.

HLB: 4.6

Form @ 25C: Solid M.P. 50

Viscosity cSt 100F: 1200

EMSORB 2518 Sorbitan Diisostearate:

Is an effective auxiliary emulsifier. It is nearly odor-free and is very light in color.

HLB: 3.0

Form @ 25C: Liquid Pour Pt. -4

Viscosity cSt 100F: 730

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters:

Ethoxylated fatty acids and polyethylene glycol (PEG) fatty acid esters are nonionic, specialized, mono- and diesters of various fatty acids. These products, made either by ethoxylation or by esterification with polyethylene glycol, have a wide range of surfactant properties. They provide lubricity and softening as components in a variety of formulated industrial and textile processing oils, and are useful as functional emulsifiers in textile fabric finishing softeners. They are generally strong emulsifiers of fats, oils and solvents, and are widely used as emulsifiers in textile, industrial and household products, as well as in cosmetics, pharmaceuticals and other high-purity end uses.

EMEREST 2634 PEG 300 Monopelargonate:

Is a water dispersible surfactant whose primary end-use is as an overspray for open-end spinning of synthetic fibers.

HLB: 12.8

Form @ 25C: Liquid Pour Pt. <-15

Viscosity cSt 100F: 25

EMEREST 2654 PEG 400 Monopelargonate:

Is a water-soluble surfactant used as a base lubricant for synthetic fiber spin finishes, open end spinning, and overspray finishes. It is also an excellent co-emulsifier and coupling agent for many formulations.

HLB: 14.3

Form @ 25C: Liquid Pour Pt.: 5

Viscosity cSt 100F: 34

EMEREST 2620 PEG 200 Monolaurate:

Can be used as a nonionic emulsifier or coupling agent. It is used as a defoamer in water base coatings, a viscosity depressant in vinyl plastisols, a viscosity control additive in hair rinse formulations, and as a paper softener.

HLB: 9.3

Form @ 25C: Liquid Pour Pt. 9

Viscosity cSt 100F: 123

EMEREST 2630 PEG 300 Monolaurate:

Is a moderately hydrophilic emulsifier which is primarily used as a lubricant component and scrooping agent for textile fibers and yarn, applied either from aqueous or emulsifiable mineral oil systems. It also functions as a viscosity control agent for plastisols.

HLB: 12.1

Form: Liquid Pour Pt.: 9

Viscosity cSt 100F: 37

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):**EMEREST 2650 PEG 400 Monolaurate:**

Functions as a wetting agent, defoamer, and leveling agent in latex paints. This hydrophilic surfactant is also used as a dispersant in pigment grinding, as a solubilizer for oils and solvents, and as an anti-block agent in vinyls. In textile fiber processing, it imparts fiber-to-fiber cohesion and fiber-to-metal lubrication.

HLB: 13.2

Form @ 25C: Liquid Pour Pt. 12

Viscosity cSt 100F: 41

EMEREST 2661 PEG 600 Monolaurate:

Functions as a water-soluble lubricant in processing synthetic fibers.

HLB: 14.8

Form @ 25C: Liquid Pour Pt. 14

Viscosity cSt 100F: 60

EMEREST 2622 PEG 200 Dilaurate:

An oil soluble surfactant, can be used as a co-emulsifier and lubricant in self-emulsifiable textile and industrial oils, as a mold release agent, and as a viscosity control agent. EMEREST 2622 is also used in specialty paper coatings.

HLB: 7.6

Form @ 25C: Liquid Pour Pt. 0

Viscosity cSt 100F: 22

EMEREST 2652 PEG 400 Dilaurate:

An oil-soluble emulsifier, can be used as a softener, lubricant, and release agent for paper. In the textile industry it serves as a coupler and lubricant in synthetic fiber spin finishes.

HLB: 10.8

Form @ 25C: Liquid Pour Pt. 8

Viscosity cSt 100F: 38

TRYDET 2685 Ethoxylated Fatty Acid:

Is an emulsifier for mineral oils and fats. It serves as an excellent lubricant.

HLB: 7.5

Form @ 25C: Solid M.P. 37

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):

TRYDET 2670 POE (5) Stearic Acid:

Is an emulsifier for mineral oils and fats. It is used as a lubricant in the leather industry and as a napping softener in the textile industry, providing scroop and fiber-to-metal lubricity. TRYDET 2670 is also used in mineral oil emulsions for polishes and lard oil emulsions for metal buffing compounds, and as an O/W emulsifier for air fresheners.

HLB: 9.2

Form @ 25C: Liquid Pour Pt. 25

Viscosity cSt 100F: 44

TRYDET 2636 POE (7) Stearic Acid:

Is a waxy emulsifier for oils and fats in industrial lubricants. It imparts softening and lubricating properties to textiles and leather. TRYDET 2636 is very similar to TRYDET 2670, but has better water dispersibility.

HLB: 10.1

Form @ 25C: Solid M.P. 28

Viscosity cSt 100F: 57

TRYDET 2671 POE (8) Stearic Acid:

Can be used as a self-emulsifying lubricant for textile and other industrial applications. Textile uses include self-emulsifying softeners, lubricants and scrooping agents for synthetic fibers. It is also useful at low levels as a stabilizer in starch solutions.

HLB: 11.4

Form @ 25C: Solid M.P. 30

EMEREST 2640 PEG 400 Monostearate:

Functions as an emulsifier of oils and fats in the manufacture of fluid or paste emulsions for industrial lubricants, consumer products, and textile lubricants and softeners. This waxy lipophilic surfactant is also used as a thickening agent and stabilizer for starch coatings on paper, and as a water dispersible paper size. EMEREST 2640 is also a good lubricant for channeling wire through conduit.

HLB: 12.0

Form @ 25C: Solid M.P. 32

Viscosity cSt 100F: 57

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):**EMEREST 2662 PEG 600 Monostearate:**

Is an emulsifier for industrial and textile formulations and can be used as a viscosity modifier. Textile applications include its use as a component in softeners and self-emulsifying lubricants.

HLB: 13.8

Form @ 25C: Solid M.P. 40

EMEREST 2610 PEG 1000 Monostearate:

Is a water soluble emulsifier used to emulsify glycerol monostearate in nonionic textile lubricants and softeners. EMEREST 2610 is used as an emulsifier and thickener. In starch solutions, it acts as an antigellant.

HLB: 15.7

Form @ 25C: Solid M.P. 36

TRYDET 2672 POE (40) Stearic Acid:

Is a strongly hydrophilic emulsifier, stabilizer, antigellant, and lubricant. It is used as an emulsifier for glycerol monostearate and other waxy esters in the production of concentrated, pourable textile lubricants and softeners, and as a stabilizer and antigellant for starch solutions. Other applications include its use as a nonabrasive coating for glass bottles.

HLB: 17.3

Form @ 25C: Solid M.P. 50

EMEREST 2675 POE (50) Stearic Acid (30% aqueous):

Is a very hydrophilic emulsifier used for preparing solubilized oils. It is also used as a viscosity modifier and as a softener or plasticizer in acrylic or vinyl resin emulsions.

HLB: 17.8

Form @ 25C: Liquid Pour Pt. 0

Viscosity cSt 100F: 671

EMEREST 2642 PEG 400 Distearate:

Is a lipophilic waxy surfactant that performs as an emulsifier and thickener in cosmetic and industrial emulsions.

HLB: 7.5

Form @ 25C: Solid M.P. 36

Viscosity cSt 100F: 52

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):

EMEREST 2625 PEG 200 Monoisostearate:

Exhibits unique surfactant and lubricant properties resulting from the liquid, long-chain, saturated fatty acid from which it is made. It can be used as a component in fiber lubricants, textile fiber processing aids and concentrated liquid fabric softeners.

HLB: 8.3

Form @ 25C: Liquid Pour Pt. -8

Viscosity cSt 100F: 50

TRYDET 2644 PEG 400 Monoisostearate:

Is similar in end uses to EMEREST 2625 but is more hydrophilic.

HLB: 11.3

Form @ 25C: Liquid Pour Pt. 10

Viscosity cSt 100F: 70

EMEREST 2624 PEG 200 Monooleate:

Is an oil-soluble emulsifier for mineral oils, fatty oils, and softeners. It is used as a cutting oil emulsifier, a solvent emulsifier in metal cleaners and degreasers, a W/O emulsifier for consumer pesticide aerosols, and as a lubricant component in textile processing. It also softens and lubricates leather during tanning.

HLB: 8.3

Form @ 25C: Liquid Pour Pt. <-15

Viscosity cSt 100F: 34

EMEREST 2632 PEG 300 Monooleate:

Is an emulsifier and lubricant with properties and applications similar to EMEREST 2624. It is used as a selfemulsifying component in formulating textile softeners.

HLB: 10.4

Form @ 25C: Liquid Pour Pt. 10

Viscosity cSt 100F: 46

EMEREST 2646 PEG 400 Monooleate:

A moderately hydrophilic emulsifier and lubricant, is used as an emulsifier for solvents in pesticide carriers and metal cleaners. In the textile industry it is used in the formulation of specialty detergents and dyeing assistants. It is also used as an emulsifier for neatsfoot oil in leather fat liquoring and as a rewetting agent for paper.

HLB: 11.8

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 52

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):**TRYDET 2676 POE (10) Oleic Acid:**

A moderately hydrophilic emulsifier and lubricant, is used as an emulsifier for solvents in pesticide carriers and metal cleaners. In the textile industry it is used in the formulation of specialty detergents and dyeing assistants. It is also used as an emulsifier for neatsfoot oil in leather fat liquoring and as a rewetting agent for paper.

HLB: 12.2

Form @ 25C: Liquid Pour Pt. 14

Viscosity cSt 100F: 54

EMEREST 2660 PEG 600 Monooleate:

Is a water-soluble emulsifier and detergent. It functions as an emulsifier in specialty lubricants, as a dye leveling agent in textiles, and as a major component in systems used for the acid washing of printed circuit boards.

HLB: 13.6

Form @ 25C: Liquid Pour Pt. 18

Viscosity cSt 100F: 75

EMEREST 2618 PEG 4000 Monooleate:

Is a water soluble emulsifier.

HLB: 18.8

Form @ 25C: Solid M.P. 55

EMEREST 2617 PEG 6000 Monooleate:

Is a strongly hydrophilic emulsifier, stabilizer and lubricant

HLB: 19.2

Form @ 25C: Solid M.P. 58

EMEREST 2619 PEG 6000 Monooleate (50%):

Is similar to EMEREST 2617 but is easier to handle.

HLB: 19.2

Form @ 25C: Liquid Pour Pt. 0

Viscosity cSt 100F: 1600

EMEREST 2647 PEG 400 Sesquioleate:

Finds application as an oil and fat emulsifier in industrial and textile lubricants.

HLB: 9.4

Form @ 25C: Liquid Pour Pt. -6

Viscosity cSt 100F: 50

HENKEL CORP.: EMERY GROUP: Ethoxylated Fatty Acids and Polyethylene Glycol Fatty Acid Esters(Continued):

EMEREST 2648 PEG 400 Dioleate:

Is a lipophilic liquid emulsifier and solubilizer for mineral oils, fats, and solvents. A prime application for EMEREST 2648 is the emulsification of kerosene in agricultural and pesticide sprays. EMEREST 2648 is also used in the emulsification of latex paints, metalworking fluids, solvents, and specialty and industrial lubricants.

HLB: 8.8

Form @ 25C: Liquid Pour Pt. -6

Viscosity cSt 100F: 45

EMEREST 2665 PEG 600 Dioleate:

Is slightly more hydrophilic than EMEREST 2648, functioning in many similar applications.

HLB: 10.3

Form @ 25C: Liquid Pour Pt. 19

Viscosity cSt 100F: 64

TRYDET 2682 Ethoxylated Mixed Rosin and Fatty Acids:

Is a relatively low-foaming detergent and emulsifier that performs exceptionally well with alkyl aryl sulfonates and soaps. Detergency is improved by incorporating conventional phosphate builders. It is used in the textile industry as a leveling agent for package and skein dyeing and in soaping off vat and naphthol dyeings. It is a versatile and strong co-emulsifier for xylene, kerosene, trichlorobenzene, o-dichlorobenzene, and similar solvents when used with TRYLON 6702 or TRYFAC 5553.

HLB: 13.4

Form @ 25C: Liquid Pour Pt. 17

Viscosity cSt 100F: 209

TRYDET 2681 Ethoxylated Tall Oil:

Is used in formulating controlled foaming detergents for commercial laundries, textile scouring, metal and hard surface cleaners, and degreasers.

HLB: 12.1

Form @ 25C: Liquid Pour Pt. 20

Viscosity cSt 100F: 196

HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alcohols:

The TRYCOL Ethoxylated Alcohols include products that are excellent detergents, wetting agents, and efficient emulsifiers, used as dispersants, solubilizers, coupling agents, and rewetting agents. They provide detergency and wetting in specialty cleaners for the institutional, industrial, household, and textile markets. They are also used as textile dyeing assistants, and are versatile emulsifiers for use in industrial, textile and consumer specialty products. The strong penetrating properties of these products suggest their selective use in agricultural chemicals.

TRYCOL 5950 POE (4) Decyl Alcohol:

Is a high speed wetting agent with moderately low foaming properties. It is used as a penetrant for yarn and other fabrics in atmospheric and pressure dyeing systems, and in resin pad-bath applications. TRYCOL 5950 is also an intermediate in the synthesis of anionic surfactants.

HLB: 10.5

Form @ 25C: Liquid Pour Pt. -5

Viscosity cSt 100F: 17

TRYCOL 5951 POE (5) Decyl Alcohol:

Is a wetting agent that permits better penetration into clay soils and which also acts as an efficient dispersing agent.

HLB: 11.6

Form @ 25C: Liquid Pour Pt. 8

Viscosity cSt 100F: 19

TRYCOL 5952 POE (6) Decyl Alcohol:

Is a nonionic, high speed wetting agent which improves the permeability of clay soils promoting rapid water penetration. It is also used as "wetter" for fire fighting, particularly of forest fires. TRYCOL 5952 provides low re-wetting properties making it useful as a pad-bath penetrant in water and grease repellent applications. It is also a good emulsifier for polyethylene emulsions used in water repellent applications.

HLB: 12.4

Form @ 25C: Liquid Pour Pt. 8

Viscosity cSt 100F: 26

TRYCOL 5953 POE (6) Decyl Alcohol, 90% active:

Is similar in most properties to TRYCOL 5952 but contains 10% water so as to effect a clear, pourable product.

HLB: 12.4

Form @ 25C: Liquid Pour Pt. -15

Viscosity cSt 100F: 28

HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alcohols
(Continued):

TRYCOL 5993 POE (3) Tridecyl Alcohol:

An oil-soluble liquid emulsifier, provides anti-foaming properties in textile formulations. It is also used as an intermediate in the manufacture of anionic surfactants by sulfation or phosphation.

HLB: 7.9

Form @ 25C: Liquid Pour Pt. -15

Viscosity cSt 100F: 19

TRYCOL 5940 POE (6) Tridecyl Alcohol:

Has outstanding emulsifying, dispersing and wetting properties. Being a moderately low foamer, it is useful as an emulsifier and detergent in degreasers and cutting oils. It is also excellent for low temperature wool scouring. TRYCOL 5940 may be further reacted by sulfation or phosphation to form specialty surfactants.

HLB: 11.4

Form @ 25C: Liquid Pour Pt. 12

Viscosity cSt 100F: 32

TRYCOL 5949 POE (8) Tridecyl Alcohol:

Is a water-soluble surfactant. It is useful as a foam builder and solubilizer for alkyl aryl sulfonates, essential oils, aromatic solvents, fats, and waxes. TRYCOL 5949 is also used as a co-emulsifier.

HLB: 12.5

Form @ 25C: Liquid Pour Pt. 8

Viscosity cSt 100F: 39

TRYCOL 5941 POE (9) Tridecyl Alcohol:

A water-soluble nonionic general purpose wetting agent, re-wetting agent and detergent, is used with alkyl aryl sulfonates in light and heavy duty high foaming cleaners. It is also used as a re-wetter for paper towels, as a raw wool detergent, and a versatile co-emulsifier for aromatic and aliphatic solvents.

HLB: 13.0

Form @ 25C: Liquid Pour Pt. 20

Viscosity cSt 100F: 43

TRYCOL 5942 POE (11) Tridecyl Alcohol:

Is a water-soluble surfactant used in light and heavy duty cleaning formulations.

HLB: 13.8

Form @ 25C: Liquid Pour Pt. 17

Viscosity cSt 100F: 47

HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alcohols
(Continued):

TRYCOL 5968 POE (8) Tridecyl Alcohol, 90% active:

Is similar in most properties to TRYCOL 5949, but contains 10% water for ease in handling.

HLB: 12.5

Form @ 25C: Liquid Pour Pt. <-10

Viscosity cSt 100F: 51

TRYCOL 5944 POE (9) Tridecyl Alcohol, 85% active:

Is similar in most properties to TRYCOL 5941, but contains 15% water for ease in handling.

HLB: 13.0

Form @ 25C: Liquid Pour Pt. <-10

Viscosity cSt 100F: 61

TRYCOL 5943 POE (12) Tridecyl Alcohol:

Is a hydrophilic general purpose nonionic with largely the same end-uses as TRYCOL 5942, but with a slightly higher cloud point.

HLB: 14.5

Form @ 25C: Semi-solid M.P. 16

TRYCOL 5874 POE (14) Tridecyl Alcohol, 75% active:

Is a hydrophilic, general purpose emulsifier, containing 25% water for ease of handling.

HLB: 15.0

Form @ 25C: Liquid Pour Pt. 10

Viscosity cSt 100F: 78

TRYCOL 5946 POE (18) Tridecyl Alcohol:

A strongly hydrophilic emulsifier, dispersant, solubilizer and detergent, is used as an emulsifier in cleaners and as an intermediate in the manufacture of anionic surfactants. In textile applications, TRYCOL 5946 is used as an acid dye leveling agent and as a wet processing detergent exhibiting excellent foam stabilizing properties.

HLB: 16.0

Form @ 25C: Solid M.P. 38

TRYCOL 5882 POE (4) Lauryl Alcohol:

Functions as a co-emulsifier for silicone in cleaner polishes and mold release agents, and as an all purpose oil and fat emulsifier in industrial lubricants. For textile applications, this biodegradable, oil-soluble, water-dispersible ether is used as an emulsifier for mineral oil in lubricants such as coning oils. When sulfated, it forms a high-foaming anionic surfactant.

HLB: 9.2

Form: Liquid Pour Pt. 12

Viscosity cSt 100F: 20

**HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alcohols
(Continued):**

TRYCOL 5963 POE (8) Lauryl Alcohol:

Is a water-soluble, biodegradable detergent, wetting agent and emulsifier. It is a general purpose nonionic surfactant with many diverse applications.

HLB: 12.6

Form @ 25C: Liquid Pour Pt. 25

Viscosity cSt 100F: 35

TRYCOL 5967 POE (12) Lauryl Alcohol:

Serves as a nonionic all-purpose detergent and emulsifier. It is similar to TRYCOL 5963 in diversity, but is more hydrophilic. TRYCOL 5967 is also highly biodegradable.

HLB: 14.4

Form @ 25C: Solid M.P. 32

TRYCOL 5964 POE (23) Lauryl Alcohol:

Is a water-soluble emulsifier and solubilizing agent. It is used as a co-emulsifier for silicone in cleaner polishes and mold release agents, and as a solvent emulsifier for textile dye carriers.

HLB 16.7

Form @ 25C: Solid M.P. 40

TRYCOL 5888 POE (20) Stearyl Alcohol:

Is a water-soluble emulsifier and solubilizing agent. It is used as a component in dyeing assistants and as a low-foaming solvent emulsifier in textile dye carriers. It acts as a stabilizer in natural and synthetic latices, and is used as a wax emulsifier in coatings for citrus fruits.

HLB: 15.3

Form @ 25C: Solid M.P. 40

TRYCOL 5972 POE (23) Oleyl Alcohol:

Is a strongly hydrophilic emulsifier, dispersant, solubilizer and detergent. It is used as a stabilizer and anticoagulant for natural and synthetic latices and dye pastes, as a dyeing assistant for wool/acrylic blends, and as a detergent and lubricant for fiber/fabric scouring. TRYCOL 5972 is also used as an emulsifier for waxes used in coating citrus fruits.

HLB: 15.8

Form @ 25C: Solid M.P. 47

TRYCOL 5971 POE (20) Oleyl Alcohol:

Is a high hydrophilic emulsifier, dispersant and solubilizer.

HLB: 15.3

Form @ 25C: Solid M.P. 39

TRYCOL 5966 Ethoxylated Lauryl Alcohol:

Is used as a general purpose, low foaming emulsifier, and is especially useful for mineral oils and dye carriers.

HLB: 8.7

Form @ 25C: Liquid Pour Pt. -7

Viscosity cSt 100F: 23

HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alkylphenols:

The TRYCOL Ethoxylated Alkylphenols have chemical and physical properties similar to the TRYCOL Ethoxylated Alcohols. They are used as dispersants, solubilizers, coupling agents, wetting agents, leveling agents and dyeing assistants.

TRYCOL Ethoxylated Alkylphenols are also very stable against hydrolysis by acids and alkalies and therefore are useful as components of acidic or alkaline formulated products.

TRYCOL 6975 POE (30) Octylphenol, 70%:

Is an aqueous solution of a POE (30) Octylphenol that is used as an emulsifier and wetting agent.

HLB: 17.1

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 260

TRYCOL 6984 POE (40) Octylphenol, 70%:

Is an aqueous solution of a POE (40) Octylphenol. A strongly hydrophilic dispersing and wetting agent, its major application is as a primary emulsifier in emulsion polymerization of acrylic and vinyl monomers.

HLB: 17.9

Form @ 25C: Liquid Pour Pt. 13

Viscosity cSt 100F: 220

TRYCOL 6960 POE (1) Nonylphenol:

An oil-soluble surfactant and co-emulsifier, is used in combination with water-soluble surfactants as a defoaming agent.

HLB: 4.6

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 150

TRYCOL 6961 POE (4) Nonylphenol:

Is an oil-soluble co-emulsifier often used as a corrosion inhibitor in two cycle engine oils.

HLB: 8.9

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 472

TRYCOL 6940 POE (5) Nonylphenol:

Is an oil soluble emulsifier.

HLB: 9.9

Form @ 25C: Liquid Pour Pt. 11

Viscosity cSt 100F: 102

**HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alkylphenols
(Continued):**

TRYCOL 6962 POE (6) Nonylphenol:

Is used as a dispersing agent, wetting agent or co-emulsifier in acid cleaning solutions, solvent emulsions, and detergents.

HLB: 10.9

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 100

TRYCOL 6963 POE (7) Nonylphenol:

Is an emulsifier, dispersing and wetting agent.

HLB: 11.7

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 100

TRYCOL 6964 POE (9) Nonylphenol:

Is a water-soluble surfactant widely used for general purpose detergency, wetting, and emulsification.

HLB: 13.0

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 112

TRYCOL 6974 POE (10) Nonylphenol:

Is a dispersant, emulsifier and wetting agent.

HLB: 13.2

Form @ 25C: Liquid Pour Pt. 11

Viscosity cSt 100F: 111

TRYCOL 6965 POE (11) Nonylphenol:

Is a water-soluble surfactant used in formulations for detergents and emulsifications.

HLB: 13.5

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 116

TRYCOL 6953 POE (12) Nonylphenol:

Is a water-soluble surfactant used in formulations for detergents and emulsifications.

HLB: 14.1

Form @ 25C: Liquid Pour Pt. 10

Viscosity cSt 100F: 131

TRYCOL 6958 POE (13) Nonylphenol:

Is a water soluble surfactant used as a detergent, wetting agent and emulsifier.

HLB: 14.4

Form @ 25C: Liquid Pour Pt. 10

Viscosity cSt 100F: 126

HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alkylphenols
(Continued):

TRYCOL 6952 POE (15) Nonylphenol:

Is a moderately high-foaming, water soluble surfactant used as a wetting agent and emulsifier.

HLB: 15.0

Form @ 25C: Liquid Pour Pt. 20

Viscosity cSt 100F: 139

TRYCOL 6967 POE (20) Nonylphenol:

Is a moderately high foaming water-soluble surfactant used as a detergent, wetting agent and emulsifier for emulsion polymerization.

HLB: 16.0

Form @ 25C: Solid M.P. 34

TRYCOL 6968 POE (30) Nonylphenol:

Is a water-soluble detergent and wetting agent. It is also used as an emulsifier in emulsion polymerization and as an emulsifying agent for fats, oils, and waxes.

HLB: 17.1

Form @ 25C: Solid M.P. 43

TRYCOL 6969 POE (30) Nonylphenol, 70%:

Is an aqueous solution of TRYCOL 6968. Its properties and applications are generally the same, but the liquid form makes it more practical for some applications.

HLB: 17.1

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 260

TRYCOL 6957 POE (40) Nonylphenol:

Is a water-soluble detergent and wetting agent especially effective for high-temperature detergency and dispersing. It is a co-emulsifier for fats, waxes, and oils, as well as an effective wetting agent in solutions of electrolytes. It can be used as a stabilizer for synthetic fabrics.

HLB: 17.8

Form @ 25C: Solid M.P. 40

TRYCOL 6970 POE (40) Nonylphenol, 70%:

Is an aqueous solution of TRYCOL 6957. Its properties and applications are generally the same, but the liquid form makes it more practical for some applications.

HLB: 17.8

Form @ 25C: Liquid Pour Pt. 7

Viscosity cSt 100F: 385

**HENKEL CORP.: EMERY GROUP: TRYCOL Ethoxylated Alkylphenols
(Continued):**

TRYCOL 6971 POE (50) Nonylphenol:

Performs similarly to TRYCOL 6957, and is slightly more hydrophilic in nature.

HLB: 18.2

Form @ 25C: Solid M.P. 54

TRYCOL 6972 POE (50) Nonylphenol:

Is a 70% solution of TRYCOL 6971. Its properties and applications are generally the same, but the liquid form makes it more practical for some applications.

HLB: 18.2

Form @ 25C: Liquid Pour Pt. -4

Viscosity cSt 100F: 440

TRYCOL 6942 POE (100) Nonylphenol:

Is a highly water-soluble, strongly hydrophilic surfactant used as a wetting agent in high electrolyte solutions and as a stabilizer in synthetic latices.

HLB: 19.0

Form @ 25C: Solid M.P. 56

TRYCOL 6981 POE (100) Nonylphenol:

Is a 70% solution of TRYCOL 6942. Its properties and applications are generally the same, but the liquid form makes it more practical for some applications.

HLB: 19.0

Form @ 25C: Liquid Pour Pt. 18

Viscosity cSt 100F: 564

TRYCOL 6954 POE (150) Nonylphenol:

Is a highly water soluble, strongly hydrophilic surfactant used as a wetting agent and dispersant.

HLB: 19.3

Form @ 25C: Solid M.P. 60

TRYCOL 6985 POE (8) Dinonylphenol:

A moderately lipophilic emulsifier and foam control agent, is useful as an emulsifier for polar and non-polar solvents, as spreading agent in pigment printing, and as a post-stabilizer in emulsion polymerization. An emulsifier in textile jet dye carrier applications.

HLB: 10.4

Form @ 25C: Liquid Pour Pt. 9

TRYCOL 6989 POE (150) Dinonylphenol, 50%:

Is an aqueous solution of POE (150) dinonylphenol. Textile uses include an emulsifier for flaked biphenyl dye carriers, a detergent component and leveling agent for acid, cationic and premetalized dyeings of wool and acrylic fibers.

HLB: 19.0

Form @ 25C: Liquid Pour Pt. 23

Viscosity cSt 100F: 367

HENKEL CORP.: EMERY GROUP: TRYLOX Ethoxylated Sorbitol and Ethoxylated Sorbitol Esters:

TRYLOX Ethoxylated Sorbitols and Ethoxylated Sorbitol Esters are hydrophilic surfactants that function as emulsifiers, dispersants, wetting agents, lubricants, plasticizers, and solubilizers in household, industrial and textile specialty products. The TRYLOX series generally contains structures that are highly efficient oil/solvent emulsifiers, hence they find wide acceptance as major emulsifier components in industrial and textile concentrates.

TRYLOX 6753 POE (20) Sorbitol:

Functions as a humectant and plasticizer. It serves as an intermediate in the synthesis of fatty acid esters and improves the pourability and clarity of high solid "clear concentrate" surfactant solutions.

HLB: 15.4

Form @ 25C: Liquid Pour Pt. 7

Viscosity cSt 100F: 200

TRYLOX 6746 POE (40) Sorbitol Hexaoleate:

Is an O/W balanced emulsifier for petroleum oils, vegetable oils, and solvents. It functions as an emulsifier for oil based metal lubricants and textile processing aids and is a superior emulsifier component for aliphatic and aromatic solvents in low foaming textile dye carriers.

HLB: 10.4

Form @ 25C: Liquid Pour Pt. <-10

Viscosity cSt 100F: 120

TRYLOX 6747 POE (60) Sorbitol Hexaoleate:

A low foaming emulsifier for organic solvents, can also be used as an emulsifier for paraffin oils in industrial lubricants. Its balanced solubility properties make it useful in various systems and in some instances can be used as the primary emulsifier.

HLB: 11.3

Form @ 25C: Liquid Pour Pt. 4

Viscosity cSt 100F: 110

HENKEL CORP.: EMERY GROUP: TRYLOX Ethoxylated Triglycerides:

The TRYLOX Ethoxylated Triglycerides are versatile nonionic surfactants which range in water solubility from lipophilic to strongly hydrophilic. They are used as emulsifiers, dispersants, rewetting agents, solubilizers, lubricants, softeners, antistatic agents, latex stabilizers, leather processing auxiliaries, and dyeing assistants for textiles, paper and leather.

TRYLOX 5900 POE (5) Castor Oil:

A hydrophobic emulsifier and dispersing agent, is an excellent co-emulsifier exhibiting foam control properties for chlorinated and aromatic solvents. In water-based paints, it aids the dispersion of pigment slurries and improves gloss and freeze-thaw resistance. TRYLOX 5900 is also a clay dispersant and carrier for paper coatings. Textile uses include foam control and emulsification in low foaming dye carriers.

HLB: 4.0

Form @ 25C: Liquid Pour Pt. -3

Viscosity cSt 100F: 375

TRYLOX 5902 POE (16) Castor Oil:

Is a moderately lipophilic emulsifier and lubricant. It is used as a co-emulsifier for metalworking oils and hydraulic fluids. In textiles it is used as a component in leveling and dispersing agents for vat and naphthol dyes, and as a co-emulsifier for rayon delusterants and fiber lubricants.

HLB: 8.6

Form @ 25C: Liquid Pour Pt. -22

Viscosity cSt 100F: 313

TRYLOX 5904 POE (25) Castor Oil:

Is a liquid water-soluble emulsifier and lubricant. It is recommended for the formulation of soluble oils, cutting fluids, and fiber finishes.

HLB: 10.8

Form @ 25C: Liquid Pour Pt. -5

Viscosity cSt 100F: 396

TRYLOX 5906 POE (30) Castor Oil:

Is a water-soluble emulsifier for oils, solvents, and waxes, and a dispersant for pigments. It is used as a degreaser, emulsifier, and lubricant in fat liquoring formulas, as a viscosity and emulsion stabilizer for polyvinyl acetate and water-based paints, and as an emulsifier and dispersing agent for urethane foams and polyester resins. TRYLOX 5906 contributes to the softness and absorbency of wet-strength papers. In textile applications it is used as a co-emulsifier in fabric softener and dye carrier systems, as a dyeing assistant, and as an emulsifier in synthetic fiber lubricants.

HLB: 11.8

Form @ 25C: Liquid Pour Pt. 9

Viscosity cSt 100F: 309

**HENKEL CORP.: EMERY GROUP: TRYLOX Ethoxylated Triglycerides
(Continued):**

TRYLOX 5907 POE (36) Castor Oil:

Is a water-soluble emulsifier for solvents and oils. It is a lubricant and softener for textiles and leather. It also acts as a versatile co-emulsifier with anionic emulsifiers in formulating textile dye carriers based on aromatic and aliphatic solvents.

HLB: 12.6

Form @ 25C: Liquid Pour Pt. 12

Viscosity cSt 100F: 363

TRYLOX 5909 POE (40) Castor Oil:

Is more water-soluble than TRYLOX 5907, but generally has similar applications.

HLB: 13.0

Form @ 25C: Liquid Pour Pt. 18

Viscosity cSt 100F: 313

TRYLOX 5918 POE (200) Castor Oil, 50%:

A strongly hydrophilic emulsifier, lubricant and antistat, is used in textile fiber processing as an antistatic, humectant and scrooping agent. It is also used as an emulsifier for hydrophobic glycerides and sorbitan esters in blended lubricants for fibers and yarns.

HLB: 18.1

Form @ 25C: Liquid Pour Pt. 7

Viscosity cSt 100F: 1015

TRYLOX 5921 POE (16) Hydrogenated Castor Oil:

Is an emulsifier, lubricant, and softener having very low odor and excellent heat stability. It is an excellent emulsifier for castor oil and provides lubricity and softness in fabric softeners and aerosol fabric sprays.

HLB: 8.6

Form @ 25C: Liquid Pour Pt. 7

Viscosity cSt 100F: 569

TRYLOX 5922 POE (25) Hydrogenated Castor Oil:

Is a moderately hydrophilic emulsifier used in textile applications as an emulsifier for resin finishing and softener-lubricant systems. It is a good co-emulsifier in dye carrier solvent systems and for lanolin.

HLB: 10.8

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 535

HENKEL CORP.: EMERY GROUP: TRYMEEN Ethoxylated Fatty Amines:

The TRYMEEN Ethoxylated Fatty Amines are mildly cationic surfactants. They are used as wetting and penetrating agents, and are substantive to a wide variety of substrates, e.g., metals, glass, textiles, plastics and clays. When the TRYMEEN cationics are absorbed, they deposit emulsified oils and/or dispersed solids on the surfaces upon which they are exhausted, usually without breaking the emulsions or dispersions. The products are also effective emulsifiers, dispersants, solubilizers, antistats, lubricants and acid corrosion inhibitors.

TRYMEEN 6603 POE (8) Tallow Amine:

Is a moderately low foaming emulsifier for mineral oil, waxes, solvents, and vegetable oils and contributes to the wetting, lubricating, and softening properties of the end product. It is used as a solvent emulsifier for low-foaming dye carriers, as a dyeing assistant, and as a cationic emulsifier for polyethylene textile softeners. TRYMEEN 6603 is also an emulsifier for fats and oils in industrial lubricants.

HLB: 11.4

Form @ 25C: Liquid Pour Pt. -2

Viscosity cSt 100F: 87

TRYMEEN 6606 POE (15) Tallow Amine:

A hydrophilic emulsifier, is a highly effective anti-precipitant for mixed dye baths, a superior leveling agent for acid dyes, and a migrating agent for dispersed dyes. TRYMEEN 6606 is also an intermediate for quaternary ammonium compounds and a versatile antistat for processing synthetic fibers.

HLB: 14.3

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 96

TRYMEEN 6607 POE (20) Tallow Amine:

Is used in the textile industry as an antistat and lubricant for wool and synthetic fiber processing, and as a co-emulsifier and antistat in synthetic fiber spin finishes. It is also an anti-precipitant, leveling, and migrating agent in various dyeing procedures, and an antistat in carpet shampoos.

HLB: 15.4

Form @ 25C: Liquid Pour Pt. -2

Viscosity cSt 100F: 119

TRYMEEN 6609 POE (25) Tallow Amine:

Has properties and uses similar to TRYMEEN 6607 but is somewhat more hydrophilic.

HLB: 16.0

Form @ 25C: Liquid Pour Point 16

Viscosity cSt 100F: 128

**HENKEL CORP.: EMERY GROUP: TRYMEEN Ethoxylated Fatty Amines
(Continued):****TRYMEEN 6637 POE (40) Tallow Amine:**

Is an 80% aqueous solution of a strongly hydrophilic emulsifier that is used as an antistatic additive for commercial carpet maintenance. It is also used as a dyeing assistant and as a stabilizer for natural and synthetic latices to prevent coagulation by acids.

HLB: 17.4

Form @ 25C: Liquid Pour Pt. 9

Viscosity cSt 100F: 150

TRYMEEN 6617 POE (50) Stearyl Amine:

Is a strongly hydrophilic emulsifier and antistat used as an emulsifier in metal buffing compounds. In latex rubber compounding it is used to emulsify stearic acid and to prevent premature coagulation in mild acid or salt baths. Textile applications include use as a lubricant for fiberglass and as a leveling agent for acid, cationic and disperse dyeings.

HLB: 17.8

Form @ 25C: Solid M.P. 35

TRYMEEN 6601 POE (10) Coco Amine:

Is used as a co-emulsifier and antistat for textile processing oils, as a dispersing agent for inorganic salts in viscose spinning, and as an emulsifier for fats and oils in industrial lubricants.

HLB: 13.6

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 68

TRYMEEN 6623 POE (30) Oleyl Amine:

Is a hydrophilic emulsifier and textile dyeing assistant. It functions as an antiprecipitant in cross dyeing, and as a mild stripping agent and dye leveler for acid dyes.

HLB: 16.6

Form @ 25C: Solid M.P. 35

TRYMEEN 6622 POE (30) Oleyl Amine:

Is an 80% aqueous solution of TRYMEEN 6623.

HLB: 16.6

Form @ 25C: Liquid Pour Point 5

Viscosity cSt 100F: 445

TRYMEEN 6640 POE (15) Tallow Propylene Diamine:

Is an excellent dispersant in acidic solutions. It is a very strong retarder of acidic, disperse, and premetallized dyestuffs.

HLB: 13.1

Form @ 25C: Liquid Pour Pt. <-10

Viscosity cSt 100F: 120

HENKEL CORP.: EMERY GROUP: Miscellaneous Surfactants:

TRYCOL 6720 Nonionic Ether:

Is a very low foaming nonionic used in textile wet processing systems to control foam and provide penetration. It is also used in metal processing rinses.

Form @ 25C: Liquid Pour Pt. -18

Viscosity cSt 100F: 39

TRYCOL 6837 Nonionic Ether:

Is a versatile emulsifier for solvents, vegetable oils, and waxes. In the leather industry, it is used as an emulsifier for tanning chemicals. Textile uses include resin bath penetrants, polymer stabilizers, solvent scour emulsifiers, and enzyme bath penetrants. It is also used in cold water scours for felted fabrics.

Form @ 25C: Liquid Pour Pt. 5

Viscosity cSt 100F: 126

TRYLON 6702 Anionic:

Is used as a solvent emulsifier in degreasing cleaners for metal parts and engine blocks. In this application, it exhibits good detergency and excellent rinsability. In the textile industry, TRYLON 6702 is used as an emulsifier for dye carriers in high-temperature dye applications. It is also used as an emulsifier for solvent scouring. This hydrophilic, anionic, general-purpose emulsifier is effective for a wide range of aliphatic and aromatic solvents including stoddard solvent, kerosene, xylene, and chlorinated solvents.

Form @ 25C: Liquid Pour Pt. -10

Viscosity cSt 100F: 1250

TRYLON 6733 Nonionic Surfactant:

Is a long chain, liquid, saturated fatty ester possessing excellent lubricating and heat-stability properties. It is used in textile and industrial processing lubricants.

Form @ 25C: Liquid Pour Pt. 16

Viscosity cSt 100F: 36

TRYLON 6735 Nonionic Wetting Agent:

Is a low-foaming emulsifier. It finds applications in industrial, institutional and consumer detergents. In the textile industry, it is used in scouring, wetting and penetrating operations where low foam is required. It is also a co-emulsifier for solvents in solvent and dye carriers.

Form @ 25C: Liquid Pour Pt. 9

Viscosity cSt 100F: 41

HENKEL CORP.: EMERY GROUP: Miscellaneous Surfactants(Continued):**EMERY 6657:**

Is an amidoamine condensate which is used as a hydrophobic component with mineral oils and fatty esters in formulating fabric finishes. This product offers excellent softening and lubricating properties while maintaining good whiteness retention during fabric or yarn processing.

Form @ 25C: Solid M.P. 75

EMERSTAT 6660 Cationic Antistat:

Is a 100% active liquid compound which offers superlative handling characteristics and high performance antistatic capacity. Aqueous dilutions of EMERSTAT 6660 are formed rapidly with only a few minutes agitation at room temperature. It can be used as an antistat component in formulated fiber lubricants or as a top additive applied to stock yarn, fabrics, and carpets. Its antistat performance exceeds that of other commonly used commercial antistats.

Form @ 25C: Liquid Pour Pt. <0

Viscosity cSt 100F: 900

EMERLUBE 5919 Ethoxylated Vegetable Oil:

Is a water soluble product primarily used in lubricating polypropylene yarns to improve their performance in carpet backings.

Form @ 25C: Liquid Pour Pt. -1

Viscosity cSt 100F: 106

EMERY 6701 Trimethylolpropane Tripelargonate:

Has good heat stability and is used as a component for synthetic fiber manufacturing.

Form @ 25C: Liquid Pour Pt. < -7

Viscosity cSt 100F: 23

EMERY 6724 Methoxy Polyethylene Glycol Ester:

Is a low viscosity product that provides excellent lubricity for nylon, polyester and polypropylene fibers.

Form @ 25C: Liquid Pour Pt. 6

Viscosity cSt 100F: 20

HERCULES, INC.: HERCOSETT 125 Synthetic Resin for the Textile Industry:

HERCOSETT 125 is a cationic, fiber-reactive, aqueous solution of a polyamide-epichlorohydrin resin. It is used by the textile industry for preventing felting shrinkage of wool, improving abrasion resistance of natural fibers, and as an antistat for synthetic fibers.

Typical Properties:

Total solids, %: 12.5+-0.3
Viscosity at 25C, cps: 60-85
Specific gravity at 25/15.6C: 1.03
Nitrogen content (dry basis), %: 12.8
Freezing point, F (C): 30 (-1)
pH: 4.6-4.9

Textile Applications:

Prevention of Wool Felting Shrinkage:

HERCOSETT 125 provides a means of utilizing a highly effective, completely aqueous system for preventing felting shrinkage of wool. The process involves pretreatment of the wool with aqueous chlorine at low pH, followed by neutralization and application of HERCOSETT 125. This process can be used to treat wool sliver continuously, or fabrics and piece goods by a batch process.

Standard suction drum backwash equipment, having perforated drums with positive liquor recycle, is required for continuous treatment of worsted sliver. Protection of felting shrinkage by batch treatment can be carried out successfully in standard side paddle or overhead paddle dyeing equipment.

Improving Physical Properties:

HERCOSETT 125 increases tensile strength, elongation, modulus, and abrasion resistance of wool. It also reduces the strength loss and abrasion loss that result when cotton is finished for crease resistance. When applied alone or in conjunction with a hydroxylic cationic monomer, HERCOSETT 125 is an effective antistat for synthetic fibers (see U.S. Patent 3,382,096).

HERCULES INC.: HERCULES 831 Defoamer:

HERCULES 831 defoamer is a quick-dispersing, hydrocarbon oil-based antifoaming agent designed for use where immediate foam-control action is wanted. It is particularly suitable where addition adjacent to the foam-control point is required. Its efficiency is not adversely affected by temperature or pH, and it is effective in the presence of many surfactants.

Typical Properties:

Form: oily liquid

Color: greenish brown

Density, lbs/gal (kg/l): 7.62 (0.91)

Shelf life: during prolonged storage, product may settle; redisperse before using

Suggested Uses:

HERCULES 831 defoamer is designed, in general, for use in aqueous systems where foam must be controlled by chemical means, and where standard defoamers do not exhibit adequate endurance under high-temperature conditions. Specifically, it is recommended for controlling entrained air and surface foam in production and/or application processes involving latices, aqueous adhesives, paints, cutting oils, water-based printing inks, liquid floor polishes, drilling muds, and textile dyeing, finishing, and scouring operations. Also, use of 831 defoamer is suggested for treatment of industrial wastewater when foaming is a problem, and to improve the drainage rate in processes involving dewatering and filtering.

Application:

HERCULES 831 defoamer readily disperses in aqueous systems and develops its foam-control action rapidly. Thus, it can be used where little agitation is available to disperse the foam killer, or where it must be added adjacent to the point of foam control. Preferably, 831 defoamer should be added as received to the foaming system. However, for ease of metering, it can be dispersed with continuous agitation in aqueous systems prior to addition.

HI-TEK POLYMERS: Textile Industry Products:

Antifoams and Defoaming Agents-Non-Silicone Type:

FOAMGARD 73 Special:

An organic type defoamer for use where silicone antifoams cannot be used, especially in print pastes.

FOAMGARD 161:

A 100% active non-silicone antifoam. Excellent antifoam properties for dyeing carpet in dyebecks. Will not affect the flammability of carpets.

FOAMGARD 200:

Non-silicone defoamer. Cost efficient antifoam, defoamer which contains no silicone or silicates. Prevents or reduces foam in all dyeing and finishing processes. Cold water dispersible.

Antifoams and Defoaming Agents-Silicone Type:

FOAMEX AD-50:

A silicone emulsion for use in antifoaming and defoaming in a wide range of textile applications. FOAMEX AD-50 is effective in preventing foam buildup in an open beck.

FOAMEX AD-100:

A more concentrated form of FOAMEX AD-50.

SILICONE COMPOUND S-7:

A 100% active silicone antifoam compound. May be emulsified to prepare stable silicone defoaming and antifoaming agents for all applications.

Antistats:

ASTON 123:

Thermosetting polyamine. Durable antistat with high resistance to laundering and dry cleaning. Applicable to all synthetics and blends. Low temperature curable.

ASTON 456:

A concentrated nonionic antistatic finish for use on various textile fibers.

ASTON OI and OI Conc.:

Quaternary fatty derivatives. Cationic agents which improve antistat properties at extremely low levels of treatment on synthetics and blends. Substrates characterized by pleasant soft hand. No discoloration at normal drying temperatures.

PROGASTAT 204:

An antistatic agent used to control static in fiber processing. Phosphate ester type.

HI-TEK POLYMERS: Textile Industry Products(Continued):**Carpet Printing and Continuous Dyeing Assistants:****PROGALAN OGN:**

An anionic/nonionic dyeing assistant that is fast wetting, prevents frosty dyeing in printing operations. It is compatible with acid, cationic, direct, and disperse dyes. It is an excellent foaming agent for use in continuous dyeing on Kuster and other machines.

PROGALAN RTA, DPA:

Reserving agents to produce styling effects during continuous dyeing, printing or space dyeing of nylon fibers. RTA displaces disulfonated acid dyes. DPA displaces monosulfonated dyes.

PROGALAN VF:

An auxiliary for use in the continuous dyeing and printing of carpet. PROGALAN VF will help promote level, non-frosty dyeing on nylon carpet.

PROGALAN X-13:

A dyeing assistant used in printing and continuous dyeing of nylon and propylene with acid, disperse, and premetallized dyes to give level dye application with good penetration and color value.

PROGALAN XR:

An anionic leveling agent for use in space dyeing nylon fibers to prevent frosting. Excellent for use with hard to level antisoil and antistatic nylon fibers.

PROGALAN XRLF:

A lower foaming version of PROGALAN XR.

Catalysts:**ACCELERATOR DT:**

Diepoxide-based emulsion. Dispersible cross-linking resin for use in combination with ASTON 123.

ACCELERATOR ECO:

Proprietary inorganic blend. When used in conjunction with normal catalyst, it allows shorter curing times and lower temperatures.

CATALYST 341:

Buffered organic/inorganic metallic blend. General purpose catalyst with minimal effect on physical properties. Will not contribute to odor development and does not discolor finished polyester/cellulose or all-cotton fabrics. Excellent agent for carbamate reactants.

HI-TEK POLYMERS: Textile Industry Products(Continued):

Catalysts(Continued):

CATALYST 430:

Buffered metal salt. Accelerates resin curing rate without affecting bath life. Suitable for methylated urea-formaldehyde, melamine and glyoxal resins. Is especially recommended with stearamide and melamine water repellents.

Chelating Agents-Dry:

PERMA KLEER NTA Na₃ Crystals:

Nitrilotriacetic acid trisodium salt, monohydrate. High purity dry form of PERMA KLEER NTA 150. White crystalline power.

Chelating value at pH 11: 355 mg calcium per g

Chelating Agents-Liquid:

PERMA KLEER 80:

Penta sodium salt (Na₅) of DTPA. Broad spectrum chelating agent over wide pH range. Used where especially stable complex is required or when the chelating agent must compete with other stronger complexing agents. Particularly effective in bleach systems with peroxide or reducing agents. Especially effective in chelating copper.

CaCO₃, chelated per g at pH 11: 80 mg

PERMA KLEER 100:

Tetra sodium salt (Na₄) of EDTA. Chelating agent for calcium, magnesium and other divalent and trivalent metal ions in acid, neutral and alkaline conditions.

CaCO₃, chelated per g at pH 11: 100 mg

PERMA KLEER 120:

Trisodium salt (Na₃) of HEEDTA. Used to form chelates with metal ions including ferric ion from pH 1 to 13. Particularly effective in presence of strong oxidizing agents.

PERMA KLEER 354:

Sodium glucoheptonate. Chelates iron in caustic solutions. Stable at elevated temperatures.

PERMA KLEER GM:

Blend of sequestrants. Exceptionally high chelating values of iron and copper over a wide pH range. Can be used in diverse processes such as dyeing under acidic conditions or bleaching in an alkaline medium.

Iron chelating value at pH 11: 104 mg per g

Iron chelating value at pH 4: 77 mg per g

Calcium chelating value at pH 11: 49 mg per g

HI-TEK POLYMERS: Textile Industry Products(Continued):**Chelating Agents-Liquid(Continued):****PERMA KLEER NTA 150:**

40% nitrilotriactic acid trisodium salt. Low molecular weight chelating agent. Complexes iron below pH 7 only.

Chelating value at pH 11: 158 mg calcium per g

Dye Carriers and Accelerants:**KARA DYE 333:**

A completely odorless carrier which may be used either atmospherically or under pressure to dye polyester fibers. This carrier provides excellent color yield and good leveling properties.

Dyeing Assistants, Levelers and Retarders-Antiprecipitants:**CHEMCOGEN 132-N:**

Outstanding migrating agent for disperse, acid, premetallized and cationic dyes on synthetic fibers and wool. Used as an anti-precipitant in differential dyeing with acid, disperse and cationic dyes in one bath.

CHEMCOGEN 355:

An antiprecipitant for use with acid, disperse or cationic dye combinations. CHEMCOGEN 355 is also excellent as a retarding and leveling agent for acid dyes on nylon.

Dispersing Agents:**KARA SPERSE TU:**

Anionic dyeing assistant in solid form that has excellent dispersing and leveling properties with disperse dyes on nylon.

Dyeing Assistants, Levelers, and Retarders-Leveling Agents:**CHEMCOGEN 12-DL:**

A buffered leveling agent for two-tone dyeing in becks or on Kuster. It is especially for use with disperse dyes that are critical for lightfastness.

CHEMCOGEN AC:

Anionic dyeing assistant which gives outstanding transfer and leveling of acid dyes on nylon. It has excellent barre' and streak-covering properties on textured nylon goods.

CHEMCOGEN DCG:

A less expensive of CHEMCOGEN AC. Excellent for use in dyeing nylon.

HI-TEK POLYMERS: Textile Industry Products(Continued):

**Dyeing Assistants, Levelers, and Retarders-Leveling Agents
(Continued):**

DALON BD:

A leveling agent which improves the migration of acid dyes on nylon fibers. DALON BD provides outstanding transfer of acid dyes.

DALON LF-3, LF-35:

Low foaming, nonionic dyeing assistants and leveling agents that have excellent wetting properties on synthetic and natural fibers. DALON LF-3 may be used as a noncarrier system in the dyeing of polyester fibers under pressure. LF-35 is a lower concentration of LF-3.

DALON K-30:

A low foaming leveling agent for disperse dyes on polyester or nylon. Especially good for noncarrier dyeable polyester.

Fabric Lubricants:

Aliphatic Ester Sulfate Substitute:

Anionic lubricant. Unsurpassed dispersing, penetrating, retarding and lubricating properties. Effectively used in the dyeing of VEREL and for barre' control on woven and knitted nylon fabrics.

CHEMCOLOFT 75-N:

A softener to be used in the dyebath or after-rinse to give softness to nylon or polyester fibers. Excellent for use in the continuous dyeing and printing of carpet.

KARA LUBE AL, AL CONC.:

Anionic leveling agents. Promote migration and leveling of direct, disperse, and reactive dyes on cotton and polyester/cotton blends. Provide enhanced dispersion stability with fine particle size. Effective lubricants which minimize rope marks.

Fiber Lubricants-Spinning Lubricants:

PROGALUBE 47:

A very cohesive lubricant to be used in the spinning of low crimp, low denier nylon or polyester fibers.

PROGALUBE 89:

A cohesive spinning lubricant for processing lower denier and low crimp nylon or polyester carpet fibers. Good fiber-to-metal lubricant.

HI-TEK POLYMERS: Textile Industry Products(Continued):**Fiber Lubricants(Continued):****PROGALUBE 95:**

A lubricant for spinning acrylic blends into yarn. PROGALUBE 95 has good fiber-to-metal lubricity and helps soften harsh fibers during spinning.

PROGALUBE 233:

A fiber lubricant for the processing of nylon fibers. Gives good fiber-to-fiber lurbicity.

PROGALUBE 266:

A fiber lubricant for use in processing polyester and nylon fibers. Possesses excellent fiber-to-fiber lubricity.

PROGALUBE 293:

A general purpose lubricant for spinning nylon fibers.

PROGALUBE 339:

A versatile fiber lubricant recommended for processing nylon and polyester fibers. It has an excellent balance of fiber-to-fiber and fiber-to-metal lubrication and good antistatic properties. PROGALUBE 339 also prevents buildup of monomer on pin-drafters and spinning frames.

Fiber Lubricants-Coning Oils and Winding Emulsions:**PROGALUBE 433:**

A coning and de-knitting lubricant for space printed yarns. Non-smoking, excellent fiber-to-metal lubricity. May be applied to skeins or packages by exhaust method.

PROGALUBE 450-ML:

An antistatic finish for direct application on nylon, polyester and polypropylene yarns.

PROGALUBE FB-100, FB-140, FB-160:

Yarn lubricants. Self-emulsified lubricants developed to meet specific low sling characteristics where atmospheric conditions warrant attention to oil vapor control. Possess excellent scourability properties for ease of removal by aqueous or dry cleaning methods.

Fixing Agents:**KARA FIX 45:**

Cationic derivative of organic base. Substantive fixing agent to prevent bleeding of direct colors. Improves fastness to wet environment. Used alone, in dyebath rinse, or with resins.

KARA FIX 75:

A concentrated fixing agent for use with direct dyes on cotton and rayon.

HI-TEK POLYMERS: Textile Industry Products(Continued):

Penetrants and Wetting Agents:

DALON LF-1:

A low foaming, nonionic emulsifying and very fast wetting agent. It is especially recommended for use in dyebaths for acrylic, nylon, polyester, rayon, and wool fibers.

KARA WET DOSS:

70% active sodium dioctyl sulfosuccinate. Fast wetting. Good for emulsification and foaming applications.

KARA WET FS-90:

An economical wetter for Kuster and TAK dyeing. This product gives excellent wetting of polyester and nylon carpets in continuous operations.

KARA WET LOG:

A very fast nonionic wetting agent for use in scouring and dyeing all fibers. It is compatible with all dye types and has excellent dispersing properties. Effective at room temperature because of its cold water solubility. Excellent for Kuster dyeing prewet.

KARA WET LOG-RSS:

A more economical version of KARA WET LOG.

KARA WET SB:

A rapid wetter and detergent which has excellent stability to alkaline conditions.

PROGASOL 104:

A phosphated surfactant with excellent wetting speed. It is stable in caustic solutions. Also, it is of interest for its antistatic properties.

Preparation, Scouring and Bleaching Assistants:

KARASIST 1512:

Proprietary bleach. Desizes, scours and bleaches simultaneously. Used on cottons, rayons and heavily oiled fabrics such as those containing spandex fiber. Compatible with caustic and does not require solvents in scouring.

KLEEROX ST:

Proprietary blend. Extremely effective liquid stabilizer for hydrogen peroxide bleach baths. It is a complete replacement for sodium silicate, eliminating the problems of silicate deposits on equipment and fabric.

HI-TEK POLYMERS: Textile Industry Products(Continued):**Preparation, Scouring and Bleaching Assistants(Continued):****PROGASOL 1:**

Anionic detergent and wetting agent. Penetrating and leveling agent for synthetics and cotton. Good general purpose anionic scouring detergent.

PROGASOL 1-X:

An excellent scouring agent for use in removing lubricants and spinning oils from fibers. The combination of solvent and detergent makes it very effective for removing oils and grease stains from goods in batch or pad-batch operations. Also very effective for removing unfixed disperse dye. Improves crock-fastness.

PROGASOL COD:

Blended nonionic detergent system. Developed to facilitate rapid removal of knitting or coning lubricants. Most effective on open width equipment where agitation is at a minimum.

PROGASOL COG, COG-500:

Blended nonionic surfactants. Extremely low foaming detergent systems for removal of oils, lubricants and foreign materials from polyester double knit fabrics. Low foaming characteristics make these products suited for equipment where high turbulence is present. Extremely efficient between 90F and 140F. COG-500 is a lower concentration of COG.

PROGASOL MCX:

A general purpose scouring agent. Also, this product may be used as a foaming agent in the continuous foam dyeing of nylon carpet.

Softeners-Anionic:**Aliphatic Ester Sulfate Substitute:**

Synthetic sulfate base. Unsurpassed penetration and lubricant properties for a wide variety of substrates. Imparts soft, full hand. Excellent for pad bath application and for softening extremely firm fabrics.

Softeners-Cationic:**CHEMCOLOFT 75-N:**

A softener to be used in the dyebath or after-rinse to give softness to nylon or polyester fibers. Excellent for use in the continuous dyeing and printing of carpet.

HI-TEK POLYMERS: Textile Industry Products(Continued):

Softeners-Cationic(Continued):

HYSOFT 990:

Complex amine. Highest degree of softening power versus cost. Especially recommended for denims to reduce ozone fading. Can be used without modifications or diluted to stock textile concentrations.

HYSOFT DLC, DLC Conc.:

Economical cationic softeners which may be used on various textile fibers to impart a soft, slick hand. HYSOFT DLC can be incorporated directly into a textile dyebath.

HYSOFT NSS, NSS Conc.:

Non-yellowing cationic softeners for use on polyester/cotton blends and acrylic/cotton blends. HYSOFT NSS Conc. is a 100% concentrate.

HYSOFT S, S-80 Conc.:

Fatty amines. Cationics designed for maximum "buttery" hand on sweaters and knitwear. Effective on stretch fabrics and function as lustering agents/softeners for pile fabrics. Concentrated version suitable for solvent applications.

HYSOFT TD Conc.:

Imidazoline derivative. Powerful liquid cationic softener especially effective on nylon tricot knits. Excellent anti-static qualities. Is suitable for solvent applications.

Softeners-Nonionic:

CHEMCOLOFT 221-B:

Nonionic polyethylene emulsion that gives excellent lubricity and hand to natural and synthetic fibers. It improves sewing efficiency and reduces needle cutting.

CHEMCOLOFT AE:

A nonionic scrooping agent for use on nylon and rayon.

CHEMCOLOFT F:

A softener concentrate that is economical to use and applicable to all textile fibers. It is nonionic but can be used to make slightly cationic softener dispersions. It gives a dry lofty hand, is anti-soiling and non-yellowing.

HYSOFT 4-M:

Polymeric blend. Softener and napping assistant for cotton and cotton/polyester blends. Improves fabrics mechanical properties such as sewability and is non-yellowing and non-chlorine retentive. May be used in thermosetting resin finishes.

HI-TEK POLYMERS: Textile Industry Products(Continued):**Softeners-Nonionic:****SILKAND 40:**

Unique concentrated liquid self-finish. Used as the major softening component in pre-cure and post-cure permanent press processing. Provides full-bodied softness with surface slickness and luster. Effectively reduces "boardiness" on post-cured fabric. Improves fabric drape and surface touch after calendering wash/wear and pre-cure fabrics.

VELVAMINE 45:

45% active polyethylene softener.

VELVAMINE 109:

Self-emulsifiable concentrate. 100% active softener which will not yellow up to 400F. Excellent resistance to scorching and particularly effective for both pre- and post-cure fabrics. Compatible with all resin and reactant systems or can be applied as a self-finish.

VELVAMINE 396:

Internally plasticized fatty acid ester. High resistance to yellowing and scorching. Suitable for use with reactant finishes.

VELVAMINE S-500:

Silicone-based softener. Exhibits extreme resistance to yellowing at elevated temperature. Produces high increases in fabric and seam tear strength and abrasion resistance. Excellent softener for durable anti-stats, i.e., ASTONS. Facilitates high speed sewing by reducing needle severance problems. No build-up on equipment.

Thermoplastic Hand Modifiers:**KARA MUL 100:**

Polyvinyl acetate homopolymer emulsion. High molecular weight, large particle size resin. May be used with thermosetting resins, starches, softeners, nondurable water repellents and plasticizers. Base for adhesives. T(g) 28C.

KARA MUL 142-ST:

Self cross-linking all-acrylic emulsion. Film has good elongation and tensile properties and does not discolor. Gives a soft, durable hand to fabrics. Reduces abrasion, improves wrinkle-resistance and crockfastness and aids in controlling shrinkage. T(g)-25C.

HI-TEK POLYMERS: Textile Industry Products(Continued):

Thickeners:

PROGACYL CP-7:

An anionic, acid hydrating, derivatized guar gum thickener for use in printing and space dyeing of carpet fibers.

PROGACYL CP-2000:

A derivatized, low residue, acid hydrating guar gum thickener for use in jet printing and dyeing of nylon carpet.

PROGACYL EM-30, EM-40:

High viscosity, low solids, modified guar thickeners for use in continuous dyeing of carpets and space dyeing. They are easily mixed and have fast hydration times.

PROGACYL SBF-HV:

A nonionic thickener for use in print pastes and dye solutions. It is a medium viscosity, modified guar thickener. It is compatible with most dye types but is especially suited to the printing of cationic and acid dye combinations on differential dyeing nylon fibers.

Water Repellents:

REPEL-O-TEX 402:

Silicone emulsion. Developed to produce durable water repellency on cellulosics, wool, synthetics and their blends. May be applied by exhaustion or padding.

REPEL-O-TEX HM:

Modified reactive nitrogenous polymer. Durable water repellent and fluorochemical extender. Imparts a full hand. Also an effective napping assistant for nylon and acetate tricot.

Textile Specialties:

BTC-824:

Quaternary compound. High purity, long chain quaternary ammonium compound used with caustic to improve fabric wicking characteristics, reduce pilling on polyester and to obtain anti-static properties on triacetate fabrics. Used to remove polyvinyl acetate and other resin esters from fabrics.

DULLATONE CA:

Cationic duller. White pigment duller giving added property of a soft hand. Treated fabric has good uniform dullness with excellent durability to subsequent processing.

HI-TEK POLYMERS: Textile Industry Products(Continued):**Textile Specialties(Continued):****EMULSIFIER AN MOD:**

A blended emulsifier especially prepared for use with Silicone Compound S-7 to prepare silicone emulsions in a range of concentrations.

EXTENDER 12:

Soil release extender. Nonionic stabilizer and unique extender for fluorochemical soil release agents. Used on upholstery, drapery, and apparel fabrics. Reduces fluorochemical consumption by 50%.

PERMALENE AF:

Self-emulsifiable organic amine. Substantive gas fading inhibitor for acetate and triacetate yarns and fabrics. Combines durable protection with minimum of yellowing and no retarding action in dyeing. Stable at the boil.

PERMA SET 1500:

Glyoxal reactant. Recommended for durable press finishing of synthetic/cellulose blends. Treated materials have high crease retention and excellent performance ratings.

PERMASIST CG:

Proprietary complexing and dispersing agent. Liquid replacement for sodium hexametaphosphates to overcome dissolving and caking problems. Does not affect shade of EDTA sensitive dyes.

PERMASIST NCL:

A liquid replacement for sodium hexametaphosphate and sodium bisulfite.

VELVAGENE MF:

Organic blend. Inorganic salt-free weighter.

HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment, Dyeing and Finishing:

Preparation Chemicals and Surfactants:
Bleaching Agents:

HOECHST:

Sodium Chlorite 25K Liquid, 50K and 90K Powder. Bleaching and stripping agents containing corrosion inhibitors.

Preparation Assistants:

POLYRON CB:

Sodium Chlorite bleaching assistant. Activates and stabilizes bleach bath to increase whiteness and reduce odor problems. Contains corrosion inhibitors.

POLYRON KB:

Caustic boil assistant for cellulosics and blends. Improves wettability, whiteness and decreases fiber degradation. Solubilizes waxes and other impurities for more level dyeing.

POLYRON PB:

Peroxide bleach stabilizer. Provides high sequestering effect to prevent catalytic damage. Yields absorbent fabric with low ash value and soft hand. Water soluble, no deposits on fabric or equipment.

CARBAPON EBL:

Oxidative desizing agent. Can be used in combination with alkali or peroxide treatment. Effective removal of all sizing agents.

Surfactants:

HOSTAPUR CVA H.C.:

Nonionic detergent and wetting agent for all fibers. Good stability to hard water, metals, acids and alkalis.

HOSTAPUR CX H.C.:

Nonionic, provides superb wetting and level dyeing effects. Excellent wetting agent in carpet applications.

HOSTAPUR DAD:

Nonionic, powerful wetting agent, detergent and penetrating agent. Especially effective in initial wet-out and preparation of cotton and blends.

HOSTAPUR DOS H.C.:

Anionic wetting/rewetting agent for continuous carpet dyeing, pre-sanforizing and pre-continuous fabric dyeing.

**HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing(Continued):**

Preparation Chemicals and Surfactants(Continued):

Surfactants(Continued):

PENTEX FR:

Economical anionic/nonionic surfactant recommended for boil-off and scouring of yarns and fabrics. Good afterscour for reactive dyeing.

PENTEX OS-NF:

Non-foaming scouring agent. Especially recommended for removal of oil substances. Eliminates "smoking" problems.

PENTEX PBR:

Rapid wetting agent for continuous dyeing of greige and prepared goods. Promotes level dyeings.

PENTEX WS:

Anionic/nonionic blend for wetting/scouring of all fibers. Highly stable to caustic, Hydrogen Peroxide, Sodium Hypochlorite, Sodium Chlorite and other bleaching agents.

Dyeing Auxiliaries:

Leveling Agents:

EGANAL PS-A:

Leveling and dispersing agent for rapid, high temperature dyeing of polyester. Non-toxic alternative for solvent based carriers in HT dyeing.

LEOMIN H Liquid:

Multi-functional, non-foaming polyester dyeing auxiliary. Recommended for leveling, trimer and crease mark control in jet and beck dyeing applications.

LEOMIN HNF:

Universal dyeing auxiliary and lubricant with defoaming properties for jet dyeing.

REMOL ANL:

True leveling agent for cationic dyes on acrylic fibers. Promotes dye migration.

REMOL DC New:

Solubilizing agent for reactive dyes. Offers excellent stability to alkalinity, salt and electrolytes. Also very useful as a leveling agent for direct dyes.

**HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing(Continued):**

Dyeing Auxiliaries:

Leveling Agents:

REMOL ELA:

Economical leveling and dispersing agent for polyester and blends. Inhibits cross-straining. As an after scour, ELA prevents redeposition of surface dye.

REMOL GES Liquid:

Efficient leveling agent for nylon, wool, and blends, improves migration and even absorption of dyes.

Carriers:

HOSTATAX LO:

Low odor, cost effective carrier for atmospheric polyester dyeing. Promotes exhaustion and leveling without affecting light fastness. Excellent emulsion stability.

HOSTATEX L-PEC:

High temperature carrier and scour which provides self-cleaning and equipment cleaning. Promotes good exhaustion and leveling.

REMOL LE:

High temperature carrier. Best for level dyeing of polyester. Also recommended for repair and stripping of poor dyeings.

Lubricants:

LEOMIN H Liquid:

Multipurpose high temperature dyeing assistant for polyester which promotes lubrication, leveling, dispersing, trimer and crease mark control. Non-foaming.

LEOMIN HNF:

Universal dyeing auxiliary and lubricant with defoaming properties for jet dyeing.

REMOL NFE:

Multipurpose non-foaming lubricant for jet dyeing of polyester cotton blends. Also recommended as an after scour.

**HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing(Continued):**

Dyeing Auxiliaries:

Dispersing Agents:

REMOL ASN Liquid:

Nonionic dispersant and compatibilizer recommended for one bath dyeing of anionic/cationic or disperse/cationic combinations and as a dispersing agent for optical brighteners.

SOLEGAL P Liquid:

Highly effective anionic dispersing agent for polyester dyeing. Promotes dyebath stability and leveling and helps eliminate disperse dye filtration and shade differences.

Padding Agents:

EMIGEN DPR-A:

For padding of pigments and disperse, reactive and NAPHTOL AS dyes on cellulosics and blends. Promotes color build-up, dye penetration, and fabric appearance. Reduces frosting.

REMOL CPA:

Recommended for continuous reactive dyeing in Chem-Pad. Increases solubility in chemical bath.

SOLIDOKOLL N:

Anionic synthetic antimigrant to reduce dye migration on polyester and polyester/cotton blends during drying. Improves color yield and appearance. Does not cause retardation or guide roller deposits.

Afterscour Agents:

EMULSIFIER EL:

Nonionic emulsifier/dispersant. Prevents redeposition of surface dye in afterscour of dyed and printed fabrics. Offers excellent leveling and reduced cross-staining in polyester and polyester/cotton package.

REMOL ELA:

Scours surface dye from printed or dyed fabrics without redeposition. Inhibits cross staining. Also recommended as a leveling and dispersing agent for polyester/cotton dyeing.

REMOL NFE:

After scour for polyester/cotton blends. Non-foaming and nonionic.

HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing(Continued):

Dyeing Auxiliaries(Continued):

Fixing Agents:

CASSOFIX CA:

Cationic, non-formaldehyde, minimum shade change. Improves wetfastness properties of cellulosics dyed with directs, reactives, and other dyes.

CASSOFIX FRN-300 H.C.:

Cationic, resinous fixative. Most effective and economical. Improves wetfastness properties of direct and reactive dyes on cellulosics and blends.

Special Auxiliaries:

CASSULFON Laking Agent PF:

Improves wetfastness and Peroxide wash fastness of sulphur dyeings.

LEOMIN PMC:

Machinery cleaner.

REMOL ASN Liquid:

Compatibilizer for one bath process with cationic and anionic dyes as well as cationic and disperse dyes.

REMOL DC New:

Solubilizer for reactive dyes. Effective leveling agents for direct and reactive dyes.

REMOL NS:

Dispersing agent for coupling bath of NAPHTOL dyes. Improves flow rate in package or beam dyeing.

VINAROL ST:

Semi-permanent printing adhesive.

CASSOFIX TW:

Acceptor for exhaust pigment dyeing of cotton in garment dyeing operations.

**HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing (Continued):**

**Finishing Agents:
Resins:**

CASSURIT NDS Conc.:

Highly concentrated, low formaldehyde glyoxal based reactant for durable press and shrink resistant finishing.

CASSURIT NDS US:

Lower concentration form of CASSURIT NDS Conc.

CASSURIT PDS Conc.:

Precatalyzed, highly concentrated low formaldehyde glyoxal based reactant resin. Highly reactive.

CASSURIT PSC:

Precatalyzed glyoxal based resin, buffered for minimum shade change.

CASSURIT Catalyst AM:

Activated magnesium chloride catalyst for resin finishing.

Softeners:

FIBRAMOLL CN Liq.:

Slightly cationic. Recommended for natural and synthetic fibers. Offers good scorch resistance and low-yellowing properties. Compatible with dye fixatives, resins and brighteners.

FIBRAMOLL NI Conc.:

Nonionic, non-yellowing softener for cotton and synthetic blends.

LEOMIN WA:

Permanent, reactive silicone softener. Provides a unique hand to all fabrics. Renders ring spun hand to open-end spun yarn.

Hand Builders:

APPRETAN MB Extra:

Polyvinylacetate hand builder which imparts a soft, full hand to the fabric. Washfast.

APPRETAN VC:

Polyvinylacetate hand builder which imparts a firm, stiff hand to the fabric. Washfast.

Specialties:

LEOMIN KP:

Cationic preparation agent for electrostatic flocking. The flock material achieves high resilience and separates easily.

**HOECHST CELANESE CORP.: Textile Chemicals for Pretreatment,
Dyeing and Finishing(Continued):**

Optical Brightening Agents:

For Cellulosics:

CARBOWHITE CEC:

OBA for cellulosics and nylon. Recommended for continuous application. Offers good leveling. Neutral/blue cast.

CARBOWHITE CEF:

OBA for cellulosics and nylon. Recommended for exhaust application. May be used in Peroxide bleach bath. Neutral/blue cast.

For Polyesters:

HOSTALUX EBS-A:

OBA for polyester and other synthetic fibers. Stable in chlorite or Peroxide bleach systems. Strong bluish cast.

HOSTALUX EBS-AL:

Nonionic OBA for polyester, polyester/cotton and acetate. Recommended for continuous application. Strong blue cast.

HOSTALUX EBU:

Polyester OBA, good sublimation properties. May be applied by thermosol or exhaust process. Brilliant white with neutral/green cast.

HOSTALUX ERA:

Nonionic OBA for polyester and blends. Recommended for exhaust or continuous application. Reddish cast.

HOSTALUX ETB:

Nonionic OBA for polyester and blends. Brilliant bluish cast.

For Acrylic Fibers:

HOSTALUX NC:

Cationic OBA for acrylic fibers. Stable in sodium chlorite bleach baths. Reddish cast.

HOSTALUX NR:

Cationic OBA for acrylics. Produces brilliant whites without bleaching. Reddish cast.

HOSTALUX NRF:

Cationic OBA for acrylics. Produces brilliant bluish whites without bleaching.

For Polyamide:

HOSTALUX PN Liq.:

Anionic OBA for nylon, Lycra, and wool. Recommended for exhaust or continuous application. Produces a brilliant reddish white with excellent fastness to light and gas fading and resistance to yellowing.

HYDROLABS': Carriers:**HYDRON 73G:**

Essentially odor-free carrier; imparts no residual odor on the goods, even with low-temperature drying. Efficiently builds and levels disperse or cationic dyes on polyester, acts as a compatibilizer for cationic and anionic dyes, and minimizes cross-stain in blend dyeing.

HYDRON BR-24M:

Barre control dye carrier, low foaming for jet and atmospheric equipment; builds dark shades rapidly and develops full dye transfer and levelness on polyester and polyester/cotton blends.

HYDRON CTW:

Dye carrier for cationic-dyeable polyester on jet and conventional dyeing equipment; brilliant dyeings of color and white, and color and color in one step.

HYDRON HPF:

Multifunctional disperse dye carrier for pressure dyeing systems. Low foaming; has an unusual ability to emulsify oils, lubricants. Produces clean, level, spot-free dyeing and keeps machines clean.

HYDRON JBC:

Unique dye carrier; fully programmed one-product dyeing system for jets and beams; produces superior dyebath oil emulsification and leveling properties, foam control, disperse dye dispersibility, and barre coverage.

HYDRON KJE:

Low-odor liquid biphenyl carrier for disperse dyes on polyester.

HYDRON LOB:

Liquid carrier for atmospheric and pressure dyeing of polyester. Gives substantially less odor than conventional biphenyl carriers; produces full, bright shades with excellent fastness. Low foaming, nonionic.

HYDRON TA-3:

Carrier for triacetate. Provides good shade buildup and leveling. Provides bright shades with full fastness properties.

HYDROSTRIP 57:

Stripping carrier for polyester and blends; can be used alone or with oxidizing and reducing agents.

HYDROLABS': Cleaners:

HYDROCLEAN DA:

Nonsolvent cleaner for equipment, pad rolls, metal surfaces. Wipe on, rinse off.

HYDROCLEAN PAR-3:

Print table adhesive remover. Used to remove print table adhesives or renew adhesive surface tackiness. Minimal odor development in use.

HYDROCLEAN EJC:

HYDROCLEAN EJC Conc.(Concentrate):

Superior dyeing machine cleaner; removes caked buildup of scales and tars which contain dimers, trimers, dyes, and residual oils, leaving machine sparkling clean.

Defoamers:

BURST 100:

BURST 83Q:

BURST 07C:

Highly efficient, stable, "reacted" silicone defoamers which virtually eliminate problems associated with free silicone oils common in most silicone defoamers. Excellent foam control plus strong lasting power minimizes the need for defoamer adds during processing. Stable to high electrolyte concentrations from salts, acids, alkali etc., present in processing baths.

BURST NS-723:

Nonsilicone defoamer offering exceptional stability in the processing bath.

HYDRODEFOAM SP:

High-temperature and pressure-stable silicone defoamer for jet machines; will not spot goods; remains effective through entire dye cycle.

HYDRODEFOAM VP:

Print paste defoamer. Excellent screen release properties.

HYDROLABS': Detergents/Surfactants:**Product Name:****HYDRISEL NA:****HYDRISEL NA Conc.(Concentrate):**

Surfactant and wetting system for high levels of bleaching agents, acids, alkalies, and salt solutions; stable to prolonged periods of boiling or bleaching.

HYDRISEL SX-4:**HYDRISEL SX-440(Concentrate):**

Alkali-stable detergent for scouring or peroxide bleaching. Rapid wetting and penetration combine with good detergency to yield highly efficient, uniform scouring. Low foaming, stable to 5% caustic solutions. Can also be used effectively in single-bath scour and dye systems.

HYDRISEL SX-22:

Wetting agent and detergent designed for use in highly alkaline systems (up to 24% caustic). Applications include caustic scouring, peroxide bleaching, mercerizing. Provide rapid wetting without excessive foam.

HYDROTERGE A-114:

A concentrated general purpose scour, HYDROTERGE A-114 is a blend of anionic/nonionic surfactants. Offering good suspension of particulates such as soil and dye residues, HYDROTERGE A-114 also effectively removes and prevents redeposition of oils and waxes.

HYDROTERGE CWM-200:

Concentrated general purpose textile scouring agent. Provides removal and emulsification of oils and solid particulates. Moderate foaming.

HYDROTERGE RC:**HYDROTERGE RC Conc.(Concentrate):**

Detergent systems for all scouring operations on synthetic, woven, and knit fabrics, especially for continuous scouring of polyester; afterscour to assure maximum crockfastness.

HYDROTERGE T:**HYDROTERGE T-200(Concentrate):**

Anionic detergents, penetrants, wetting agents.

KLENZOL 201:**KLENZOL 603(Concentrate):**

Nonionic detergents formulated for use in high turbulence equipment such as jets. Offering efficient oil removal and emulsification properties, KLENZOL 201 is especially useful in processing goods where excessive amounts of oil warrant higher than normal surfactant concentrations without foaming difficulties.

HYDROLABS': Dispersants:

HYDROSPERSE N:

Anionic dispersing agent, pasting aid, and antiagglomerant.

HYDROSPERSE U-250:

Nonionic leveling and dispersing agent for disperse dyes. Used alone for dyeing acetate, triacetate, or nylon or in conjunction with carriers for polyester dyeing; promotes extremely fine dispersions under high temperature dyeing conditions.

Edge Gums:

HYDROGUM DE:

Nonflammable edge gum for prevention of fabric curling. Rapid drying, applied by applicator wheel before framing.

HYDROGUM GN2C:

Edge gum for prevention of fabric curling. Applied via gumming machine after slitting of knit goods. Rapid drying.

Elastomeric Systems:

HYDROLAST 490:

One-package elastomeric silicone finish. Provides a durable, full-bodied, lush hand to natural and synthetic fibers.

HYDROLAST MR-30:

Silicone elastomer softener which, when used with HYDROCAT SE-47 (catalyst), imparts a soft, full-bodied, resilient finish. Enhances stretch recovery. Durable to both laundering and dry cleaning.

HYDROLAST RA-35:

Silicone elastomer finish designed to alleviate the harsh hand associated with resin finishing. Durable to laundering and dry cleaning.

Finishing Assistants:

FOMEX Series:

Foaming agents for the foam application of softeners, resins, and other finishes.

HYDRODOR JH:

Deodorant and scavenger; inhibits formaldehyde and amine odors during processing and storage of resin treated fabrics; contains no urea or DCY and has no effect on physical properties of fabric or resin.

HYDRODULL L-49:

Duller for filament fabrics. Pad applied, HYDRODULL L-49 offers excellent dispersion stability; will not impart a harsh hand to fabrics.

HYDROMER M:

Modified polyvinyl acetate homopolymer emulsion especially reacted to provide hand modification and impart bulk to fibers.

HYDROLABS': Levelers/Retarders:**HYDROLEV AOC, AOT:**

Leveling agents for disperse dyes on nylon. Give rapid dye migration, improve dye dispersions, and impart lubricity to the fiber. Nonfoaming, even with vigorous agitation; readily removed in normal rinsing.

HYDROLEV CAT-7:

Leveling agent for cationic dyes. By promoting migration and controlling the dye strike rate, HYDROLEV CAT-7 offers excellent leveling with gradual on-tone build to full yield.

HYDROLEV GA-4:

Anionic disperse dye leveling agent. Low foaming HYDROLEV GA-4 combines excellent dye migration with on-tone draw for consistent, uniform dyeing.

HYDROLEV KU-8:

Antifrosting agent for continuous dyeing or printing for nylon carpet with acid dyes to prevent surface frosting, producing full, bright, clean patterns.

HYDROLEV NPJ:

Leveling agent for pressure dyeing of regular polyesters and dyeing of noncarrier type polyesters. Contains no carrier ingredients. Excellent leveling; promotes even dye strike rate with combination shades; lubricates goods during dye cycle.

HYDROLEV WSL-4:

Leveling, sinking, and wetting agent for dyeing nylon carpet. Prevents floating of synthetic-backed carpet in beck dyeing. Promotes rapid dye migration; lubricates goods to prevent crack marks.

HYDROLEV X-96:

Nonionic noncarrier leveling agent for high-temperature disperse dyeing of polyester and polyester/cotton blends. Offers excellent dye migration.

HYDROL R-19:

Powerful cationic retarder featuring gradual shade buildup and good migration properties for level dyeing of all types of acrylics.

HYDRONYL AN-5:

Leveling agent and compatibilizer for acid and cationic-dyeable nylon fabrics and carpets; minimizes cross-staining.

HYDRONYL LT-147:

Leveling agent for acid dyeing of nylon. Provides uniform draw rate with excellent migration.

HYDROLABS': Levelers/Retarders(Continued):

HYDRONYL LT-150:

Low-temperature dyeing assistant for nylon carpet and fabrics. Accelerates dye strike, improves migration. Permits dyeing at temperatures of 140-180F.

HYDRONYL MRB:

Acid-dye leveling agent. Promotes on-tone buildup, controls barre, and migrates dye for best levelness in rapid dye cycles. Also compatibilizes acid and cationic dyes when cross-dyeing nylon blends. Recommended for all difficult nylon applications, especially automotive and carpet dyeing.

HYDRONYL RAN Conc.:

Barre inhibitor for nylon dyeing with acid dyes.

HYDROSTAT APL-200:

Antiprecipitant and leveling agent. Compatibilizes anionic and cationic dyes in single-bath systems. Levels neutral pre-metallized and acid dyes. Provides balanced retardation and migration on wool.

HYDROSIST SD-50, SD-52:

Dyeing assistant and lubricant for polyester knits; acetate tricot; vat dyeing of cotton and rayon; acid dyeing of wool.

NYDEX SYSTEM II:

One-bath scour and dye system for union dyeing nylon/spandex blends. System consists of:

HYDRONYL LNU:

Acid dye leveling agent for union dyeing nylon/spandex.

HYDROSCOUR GPS:

Solvent scour for the removal and emulsification of silicone lubricants typically used in spandex blends.

HYDROLABS': Lubricants/Antistats:**HYDROLUBE DR-639, DR-1917(Concentrate):**

Dyebath lubricant, nonfoaming and biodegradable, for polyester, nylon, and other synthetic fabrics.

HYDROSTAT A:

Anionic antistatic agent for natural and synthetic fibers. HYDROSTAT A may be applied in conjunction with anionic or nonionic materials.

HYDROSTAT C:

Cationic antistatic agent for synthetic fibers. Applied by either pad or long bath, allows full antistatic protection with virtually no alterations to hand. Compatible with cationic and nonionic agents.

Peroxide Stabilizers:**PEROWHITE CDS-4:**

Combination nonsilicate peroxide stabilizer and detergent for peroxide bleaching.

PEROWHITE TW:**PEROWHITE 4X(Concentrate):**

Nonsilicate peroxide bleach bath stabilizer. Effective in both continuous and batch processes, PEROWHITE TW allows bruise-free, full bleached fabric without characteristic silicate buildups.

STABILIZER FP:

Nonsilicate peroxide bleach stabilizer for batch processing.

Resins/Fixatives:**HYDROFIX DV:**

Nonionic direct dye fixative for use in package dyeing. Applied during the last rinse, HYDROFIX DV inhibits dye migration during the drying process.

HYDROFIX F-10, HYDROFIX F-40:

Improves wetfastness and crockfastness properties of acid, premetalized, and cationic dyes on polyamide fibers; effective reserving agents for dyeing polyamide/cellulosic fiber blends.

HYDROTEX RM:

Resin finish for acetate ribbons, satins, and taffeta where a crisp hand is desired. Produces a clear, high luster finish.

HYDROLABS': Softeners/Napping Agents:

HYDROLUBE MPL-3:

A complex finishing lubricant, HYDROLUBE MPL-3 reduces needle-cutting, provides softness, and allows thorough, even napping of natural and synthetic fibers and blends. Applied by pad or exhaust application in most equipment.

HYDRONAP BCT:

Softener/napping assistant providing a soft, silky, silicone-type hand with slight scroop without the aid of silicone. Applied by pad or foam methods for synthetic and natural fibers and their blends.

HYDRONAP HFR:

Cationic exhaustable softener/napping assistant for synthetic fabrics. Imparts a soft, bulky hand with slight scroop to provide excellent napping coverage.

HYDRONAP ONC-7:

An anionic napping assistant for disperse dyed fibers. Designed to prevent bleed and will not affect the crockfastness of the dyed goods. Offers excellent napping efficiency with a smooth, dry hand.

HYDRONAP SN:

Nonionic silicone napping softener for acetate, nylon, and other synthetics. Imparts abrasion resistance and soft hand; produces highest quality napped fabrics with good wearing properties. Will also impart durable water repellency when applied with HYDROCAT 14 catalyst. Will not effect lightfastness or shade of dyed goods.

HYDRONAP 3AFR:

Napping softener for nylon/acetate blends.

HYDRONAP 16A:

Antistatic napping softener for acetate, triacetates, nylon, polyester, and other synthetics. Provides lofty, full nap with soft, silky hand having some scroop. Will not discolor white fabric; has no effect on lightfastness or shade of dyed goods.

HYDRONAP VSC:

Nonionic softener/napping assistant which imparts a smooth, slick hand with moderate scroop. Applied by pad or spray methods, HYDRONAP VSC may be used on natural and synthetic fibers for thorough, even napping efficiency.

HYDROPOL ENC:

Cationic softener that exhausts to provide soft hand and reduced needle cutting on cotton and cotton blends. Nonrewetting, minimal effect on water repellency. Resists yellowing and scorching and gives excellent crockfastness.

HYDROLABS': Softeners/Napping Agents(Continued):**HYDROPOL N-25:****HYDROPOL N-40:**

Nonionic polyethylene softeners and lubricants. Improve abrasion resistance while imparting excellent fabric softness and sewability.

HYDROSOFT 2X:

Nonyellowing softener for polyester fabrics. Imparts durable softness, lubricity, and antistatic properties.

HYDROSOFT 31NS:

A nonsilicone softener/napping assistant, providing a soft, silky "silicone-type" hand. Applied by either pad or foam finishing methods, HYDROSOFT 31NS is useful on synthetic and natural fibers and blends.

HYDROSOFT 36B:

Modified cationic polyethylene emulsion softener; produces softness, bulk, abrasion resistance, and needle lubricity on cotton and knitted and woven fabrics.

HYDROSOFT 54A:

Combination softener/antistat developed for use in synthetic flock fiber processing. A cationic product, HYDROSOFT 54A imparts a smooth, buttery hand.

HYDROSOFT BNF:

Provides softness and reduced needle-cutting on cotton and cotton blends. Cationic HYDROSOFT BNF may be applied by long-bath methods.

HYDROSOFT CBA:

Cationic softener/napping assistant, which imparts a soft, full, bulky hand to synthetic and natural fibers. HYDROSOFT CBA may be applied by either exhaust or pad methods.

HYDROSOFT CFL-4:

Anionic napping softener for acetate, nylon, and acetate/nylon blends. Unlike conventional softeners, does not cause color bleeding onto labels and trim of stored garments. Gives full, lofty nap and a soft, silky nonscroopy hand. Nonyellowing, no effect on lightfastness.

HYDROSOFT FAC-36, FAC-27:

Dyebath softener/lubricants. Offer excellent compatibility in dyeing system. Permits single-bath dye and finish applications.

HYDROSOFT HC:

Cationic softener for nylon tricot and other synthetic fibers; sueding assistant.

HYDROSOFT LNC:

Nonionic softener/napping assistant for use in pigment printing and dyeing formulations. Imparts soft, pleasing hand. Also used in resin finishing to reduce fabric stiffness.

HYDROLABS': Softeners/Napping Agents(Continued):

HYDROSOFT MFC-1 (NEW):

Cationic softener that imparts a full, soft hand without adverse effect on water absorbency of cotton. Designed for finishing toweling, hosiery, and other goods where absorbency is critical. Resists yellowing, scorching. Can be applied by exhaust or pad methods.

HYDROSOFT QCF:

Softener for tricot and other warp knit synthetics. Minimum effect on crockfastness.

HYDROSOFT SMV:

Economical silicone softener for cotton and synthetics. Imparts excellent softness while aiding fabric rewetting. Provides drape and suppleness to heavyweight fabrics such as denims and corduroys.

HYDROSOFT WR:

Efficient polymeric softener formulated for polyester and polyester/cotton blends. Especially recommended when transfer printing operations follow or a semidurable water repellent finish is required.

Sequestering Agents:

HYDROQUEST 444:

HYDROQUEST 888(Concentrate):

Powerful sequestering agents for iron over a broad pH range. Effectively control iron and other trace metals in scouring, bleaching, and dyeing operations. Also sequesters calcium and magnesium hardness.

HYDROQUEST 555:

Powerful sequestrant for iron and other trace metals, with the added ability to sequester abnormally high levels of calcium or magnesium hardness.

HYDROLABS': Solvent Scours:**HYDROSCOUR GPS:**

Solvent scour for the removal of silicone lubricants from nylon/spandex fibers.

HYDROSCOUR J:**HYDROSCOUR J-300(Concentrate):**

Solvent scours for preparation of synthetics and blends. Offer good wetting and emulsification for removal of oils and particulate soil. Does not lose power at high temperature; has excellent stability at the boil, can be used in single-bath scour and dye systems or in continuous processes.

HYDROSCOUR K2A:

Solvent scour; low foaming for jet, beck, and continuous scouring of polyester and polyester blend fabrics.

HYDROSCOUR K3A:

Non-red label solvent scour for the removal of oils, spin finishes, and other lubricants from polyester and other synthetic fibers. Low foaming for use in high turbulence equipment.

HYDROSCOUR PBL:

Scouring and cleaning agent for removal of silicones and other troublesome residues from fabric or equipment.

Wetting Agents:**HYDROWET G:****HYDROWET SC:****HYDROWET SD:**

Highly active wetting and surface active agents; produce powerful rapid wetting and penetrating action.

QUIKWET Series:

General purpose wetting and scouring agents developed for continuous dyeing and printing operations where fast wetting with nonrewetting properties are required.

HYDROWET BNW:

General purpose wetting agent for use in printing and finishing operations.

HYDROWET EM:

Powerful nonionic surfactant combining excellent wetting properties with detergency and emulsifying ability over a broad range of pH and water hardness conditions.

HYDROLABS': Special Process Products:

HYDRELEASE ADL:

Soil release finish. Typically applied in the dyebath, HYDRELEASE ADL aids in the removal and prevents redeposition of oils and soil during processing as well as imparts soil release properties to the finished goods.

HYDROCIDE AAF:

Antimicrobial agent for industrial textiles.

HYDROCIDE GMC:

Preservative and bactericide for polymer systems such as print pastes, gums, thickeners. Compatible with most classes of dyestuffs.

HYDROMER TF-25:

Polymeric size system for acetate, nylon, polyester, and other synthetics which produces a strong, flexible, even film for excellent weaving properties. Prevents static buildup. Minimizes deposits in reeds or on looms. Easily removed by normal scouring.

HYDROPOWER CPLX:

Proprietary one-bath bleach/scour/dye system for polyester/cotton blends; saves 30% production time and 40% water consumption.

HYDROSIST ADP-2:

Catalyst for denier reduction processes on polyester. Accelerates reaction between alkali and fiber producing a smooth, silky, lightweight fabric. Allows controlled reaction conditions for reproducible weight loss.

HYDROSIST CLO2:

Chlorite odor and corrosion inhibitor. Minimizes odor and corrosion in sodium chlorite stripping and bleaching.

HYDROSIST PHY:

Low odor pH adjuster/stabilizer; dyebath assistant to replace acetic acid and to improve dyeing efficiency and economy.

POWERCLEAR:

Reduction clear for afterscouring dyed polyester. Twice as strong as most hydro-based clearing agents; develops full crock and washfastness on dyed polyesters. Nonflammable, no odor.

SURE SIZE 38G:

Size bath additive. Provides uniform film coverage, improved adhesion to fiber.

THIOX:

Thiourea dioxide reducing agent. Economical hydro replacement. Used in reduction clearing, stripping, print washing, vat dyeing, machine cleaning, at levels ranging from 1/5 to 1/10 of hydro usage. Safe, nonflammable, virtually odorless.

INTEX CHEMICAL, INC.: Textile Chemicals:**INTEX HEAVY SOAP 12:**

Scour and Fulling Aid

Typical Properties:

Consistency: Liquid

Appearance: Light brown to tan

pH: 8.0+-0.5

Solids: 55%

Solubility: Dissolves readily in water

Fulling Aid:

INTEX HEAVY SOAP 12 is specially compounded to give maximum foam and lubrication to insure excellent fulling properties and cleaning properties.

Scouring:

INTEX SCOURING SOAP 12 is an excellent scouring agent. Its high foam helps to float off insoluble materials and has excellent suspension properties while preventing redeposition onto the fabric. It can be used to scour all fabrics (cotton, cotton/polyester, nylon, wool and rayon). It can be built with alkalis without causing degradation to rayon or wool because of its efficiency at low temperature (100-120F.).

INTEX DYE LEV 16:

INTEX DYE LEV 16 is a special type of organic oxidizing agent which can be used in both the dyeing and printing of textiles. Following is a listing of suggested uses for INTEX DYE LEV 16:

1. To increase the color yield of cationic or disperse colors when dyeing polyester yarn #64 in open or pressure becks.
2. To prevent the decomposition of direct colors in pressure dyeing or prolonged boiling.
3. To inhibit reduction of fibre reactive dyes when dyeing by continuous and non-continuous method.
4. To prevent shade change on fabrics dyed with disperse and fibre reactive colors.
5. To prevent the bleeding of vat colors in alkaline scouring on Kier Boiling.
6. To prevent the formation of cloudy and streak effects on discharged printed dyed ground shades.

Specifications:

Appearance: Yellow/Tan Granular Material

Chemical Nature: Sodium Salt of Meta Nitrobenzene Sulfonic Acid

pH of Product: 6.2 @ 1% Conc.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX STABILIZER 17:

Pad Bath Stabilizer

Typical Properties:

Consistency: Liquid
Color: Yellow
Solubility: Infinite
Ionic Nature: Nonionic
Solids: 42+-1
pH: 8.0+-1.0

INTEX STABILIZER 17 is an additive to a pad bath designed to give better heat and shear stability to emulsion systems in the presence of inorganic salts. It will stabilize acrylic soil release polymers, acrylic polymers, vinyl acetate polymers, styrene butadiene polymers, urethane emulsions and silicone emulsions.

INTEX recommends the use of 1 to 2% on the weight of the bath.

INTEX BINDER 18:

Soft Acrylic Binder
Used for Pigment Dyeing
Good Wash Resistance

INTEX BINDER 18 is an acrylic copolymer designed for use where a soft, flexible film is desirable.

Typical Properties:

Appearance: Milky, white liquid
Solids: 45-46%
Viscosity: <300 cps Brookfield 2/20
pH: 4.0-4.5
Solubility: Dilutable in water

Due to its excellent adhesion to synthetic fibers and its formation of a flexible film, INTEX BINDER 18 has found acceptance as a binder for pigments in dyeing glass fiber fabrics.

INTEX BINDER 18 has also been used extensively for applying pigment colors to other fabrics. Its use is not restricted to any particular fiber.

INTEX BINDER 18 is also recommended as a hand modifier for synthetic or blended fabrics. Particularly when the product is used in a resin bath containing acid-producing catalyst and resin, the cross-linking characteristics produce a durable hand. Abrasion resistance may also be noticeably improved.

INTEX BINDER 18 is also suggested as a nonwoven binder, particularly where a soft hand is desired. Addition of 1.5 to 2.0% of a latent acid catalyst, such as ammonium chloride, is also recommended to promote cross-linking of the polymer.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX PLASTISOL GREY 28:**

INTEX PLASTISOL GREY 28 is a vinyl dispersion specifically formulated for high speed strand or fiber coating.

Vinyl dispersions are fluid suspensions of special fine particle size polyvinyl chloride resins in plasticizing liquids. When the system is heated to about 350F., fusion (mutual solubilization of resin and plasticizer) takes place. The dispersion turns into a homogeneous hot melt. When the melt is cooled below 140F., it becomes a tough vinyl coating with excellent physical properties such as flexibility, abrasion resistance, chemical resistance and excellent aging.

In the manufacture of glass fiber insect screening, a typical process would involve coating the yarns with the plastisol dispersion weaving the yarns into a fabric and then heat setting to cause fusion of the yarns at the interstices.

Plastisol products are normally supplied to a customer under pre-arranged specifications as to color, viscosity, fusion point, etc., therefore product specifications are not shown.

INTEX RFL 31:

INTEX RFL 31 is a compounded product to prime various substances for lamination with rubber type products.

Typical Properties:

Appearance: Light tan to reddish liquid

pH: 10.5-11.5

Odor: Strong Ammonia

INTEX RFL 31 is prepared so that it can be padded directly onto any synthetic fibers. It increases the adhesion of Hypolon, natural rubber and synthetic rubbers to the fibers. It imparts dimensional stability to scrims to make them easier to handle in processing.

INTEX DISPERSANT 33:

Dispersing Agent

Typical Properties:

Consistency: Liquid

Color: Dark Brown

pH: 9.0-10.0

Solubility: Infinite

Ionic Nature: Anionic

INTEX DISPERSANT 33 is a very effective dispersing agent. It will reduce agglomeration of dyes, especially pigments and dispersed. INTEX DISPERSANT 33 will retard settling and increases stability to high temperatures.

INTEX DISPERSANT 33 will coat insoluble particles imparting a negative charge to assure dispersion stability. It is not temperature sensitive and will work at the boil or under pressure in jets or packages.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX CARRIER 37:

INTEX CARRIER 37 is an outgrowth of numerous formulations tested to produce a suitable polyester dye carrier without biphenyl.

Typical Properties:

Consistency: Thin liquid
Color: Amber
Solubility: Emulsifies in water
pH (as is): Approx. neutral
Specific gravity: 1.048
Activity: 96+-1%

Although many dyers believe that biphenyl products are the most efficient for development of shade, INTEX CARRIER 37 has been formulated to produce satisfactory results. At concentrations in the dye bath of as low as 9% OWF, satisfactory heavy shades can be produced.

Dye cycles using INTEX CARRIER 37 are not expected to be different from conventional carriers. Carpet has been dyed successfully for one hour at the boil.

Use of INTEX CARRIER 37 is also suggested as a reserve carrier for apparel fabrics, to be used in the same manner as INTEX CARRIER 60 where biphenyl is found objectionable.

INTEX DEFOAMER 41:

Will not cause defoamer spots
Completely volatile at drying temperature
Effective deaerator in processing baths
Compatible with all chemicals

INTEX DEFOAMER 41 can be used in any type of equipment. It does not cause silicone spots on fabric nor will it leave the hard to remove silicone deposits on equipment.

INTEX DEFOAMER 41 will not effect shade or brightness of fabric or carpet. INTEX DEFOAMER 41 is completely removed from the goods during the drying temperature.

Because of the deaeration character of INTEX DEFOAMER 41 it is extremely effective in package dyeing and promotes the sinking of carpet. INTEX DEFOAMER 41 is nonionically emulsified making it compatible with all dyestuffs and finishing chemicals.

Typical Properties:

Appearance: Tan opaque liquid
pH of 2% Sol'n: 7+-0.5
Solubility: Emulsifies in water

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):**SURFACTANT 49:**

100 percent active surface active compound
Completely biodegradable
Excellent oil and wax emulsifier

SURFACTANT 49 is a one hundred percent active nonionic. It has a medium cloud point, is an excellent emulsifier for oils and waxes, and a good dispersant for particulate matter.

SURFACTANT 49 can be used as a preparation detergent or after dyeing clean up surfactant. Its high activity and excellent wetting properties allow for very low concentrations. Usually 0.25 to 0.50% OWG is all that is necessary.

SURFACTANT 49 is compatible with anionics and cationics and all dyes and chemicals normally encountered in textile dyeing and finishing.

Typical Properties:

Appearance: Water white to pale yellow liquid
Ionic Charge: Nonionic
Calculated HLB: 13.3
Cloud Point 1% Solution: 60+-2C
Activity/Solids: 100%
Specific Gravity: 1.006

INTEX SIZE 51:

INTEX SIZE 51 is a highly specialized siloxane based finish for glass fiber to prepare the fabric for subsequent lamination.

Typical Properties:

Activity: 47+-2%
pH: 6.8-8.2
Appearance: Transparent fluid
Color: Yellow
Solubility: Disperses to form white emulsion in water.

Application of INTEX SIZE 51 is in a water emulsion at a low activity level of padding and drying. Care should be taken that the application bath temperature is kept low.

INTEX LEVELER 53:

INTEX LEVELER 53 is designed to level disperse dyes on carrierless polyester carpets.

Typical Properties:

Consistency: Liquid
Appearance: Clear Amber
Solubility: Disperses in Water
Activity: 100%

INTEX LEVELER 53 will slow the strike of disperse dyes when carrier-less polyester is used. It assures dye stability.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX ANTIFOAM 54:

INTEX ANTIFOAM 54 is a specially formulated defoamer designed to meet the varied foam problems encountered in textile processing.

INTEX ANTIFOAM 54 does not contain silicones. The product is generally effective in alkaline or acid media and is readily dispersible in water.

Typical Properties:

Appearance: Yellow to light amber colored liquid

Dispersibility: Disperses readily in water

Specific Gravity: 0.869

pH (5% solution): .5-6

Laboratory tests in a simulated Jet Dye Machine shows INTEX ANTIFOAM 54 to be an effective defoamer at 180F., as well as 260F.

INTEX CARRIER 56:

Typical Properties:

Activity: 100%

Consistency: Liquid

Color: Yellow to Amber

Solubility: Disperses in water

INTEX CARRIER 56 is a jet carrier for high temperature dyeing

Properties:

1. Excellent migration of disperse dyes at low concentration (1 to 2% OWF). This applies to high energy disperse colors.

2. Accelerates the strike of high and medium energy disperse dyes to assure a closer build of shade on tone.

3. It has the ability to wet polyester even when fiber lubricants are on the fabric.

4. Economical INTEX CARRIER 56 is formulated with all active materials and can be used at 1/3 to 2/3 concentration of normal carriers which contain inactive ingredients.

5. No special mixing procedures are required, since it disperses readily in water with good agitation.

Applications:

In jet machines Intex recommends the use of 1 to 2% on the weight of the fabric.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX LEVELER 57:**

Nylon Leveler

Levels by retardation & transfer
Good wetting properties
Rinses readily after dyeing
Effective in covering some Barre's

INTEX LEVELER 57 is an Acid Dye Leveler and can be used on wool or Polyamides (Types 6 & 6.6). It levels at low temperatures by retarding the strike and high temperatures by transfer of dyes from high & low concentrations to produce a level dyeing.

INTEX LEVELER 57 has been shown to cover some Barre's produced by heat differentials.

Typical Properties:

Specific Gravity: 1.000+-0.010
pH 5% Solution: 8.0+-0.5
Appearance: Dark Amber Solution
Appearance: 10% Sol'n: Light Tan Dispersion
Ionic Charge: Anionic
Activity: 42-45%
Solubility: Readily hot or cold water

INTEX CATALYST 58:

INTEX CATALYST 58 is a solution of magnesium chloride which has found extensive use as a catalyst for durable press reactants.

Typical Properties:

Appearance: Clear Liquid
Solubility: Infinite in water
pH: 4.5-5.8
Specific Gravity: 1.275

INTEX CATALYST 58 is used with glyoxal/urea reactants in a ratio of 10 to 20% on weight of reactant, depending on type and concentration of the latter. While it can also satisfactorily be used as catalyst in a pre-cure system, it is typically used in post-cure DP Systems without danger of catalysis during storage before cutting.

Typically, inorganic salts of this nature are added as the last ingredient in the finish bath. It is also preferred that the catalyst be diluted no less than 1:1 with water before addition.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX CARRIER 60:

INTEX CARRIER 60 is based on a specific blend of biphenyl, esters, and halogenated aromatics with a nonionic/anionic surfactant system. INTEX CARRIER 60 is an outstanding "work-horse" carrier for dyeing of polyester and blends.

Typical Properties:

Activity: 98%
Form: Liquid
Color: Clear, pale yellow
Solubility: Disperses in water
pH of a 5% dispersion: 7.0+-0.2
Specific Gravity at 25C: 1.078-1.080

INTEX CARRIER 60 is designed for use in atmosphere, low and high pressure beck dyeing. It has good levelling properties and gives excellent color yields. The unique surfactant system developed for INTEX CARRIER 60 prevents the formation of any "resist" spots on the fabric and makes the carrier system compatible with all dye bath additives.

A suggested carrier level for dyeing of polyester is 4% INTEX CARRIER 60 on the weight of the fabric (OWF) to 8% OWF depending on the depth of shade.

INTEX ANTIMIGRANT 75:

Appearance: Light yellow liquid
pH: 7.5-8.0
Solubility: Infinite

INTEX ANTIMIGRANT 75 is an excellent antimigrant for thermosol dyeing. It reduces the migration of disperse, vat pigment and pigment dyes. It reduces side to side and back to face shading. It is synthetic gum that has very little tendency to build up on rolls or cans.

INTEX recommends the use of 1-3% on the weight of the bath. INTEX ANTIMIGRANT 75 is very soluble in cold water and is very simple to dilute.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX LEVELER 79:**

Cationic Dye Leveling Agent
Retarder Type Acrylic Leveler
Compatible With All Dyes & Auxiliaries

Effectively slows down the exhaustion of basic dyes on all types of acrylic yarns.

Occupies dye sites at low temperatures and gradually gives way to dye molecules as the temperature is increased.

Is compatible with softeners for the Dyer that prefers softening while dyeing.

Can be used in all dyeing processes, skein, package & piece. It can not be used in partially flooded Jets due to its foaming characteristics.

Typical Properties:

Appearance: Almost White Liquid
Odor: Mild and Pleasant
Specific Gravity: 0.997+-0.005
Ionic Nature: Cationic
pH 1%: >8.0
Solubility: Complete in water

INTEX SOFTENER 84:

Softener to improve physicals of resin treated fabric.

Typical Properties:

Consistency: Liquid
Color: Water White
pH: 7.0+-1.0
Activity: 50%
Ionic Activity: Nonionic
Solubility in Water: Infinite

INTEX SOFTENER 84 is an additive to resin finish to soften and lubricate. It improves tear strength and flex abrasion of cotton and cotton blends. It also reduces the free formaldehyde content of the fabric. It is compatible in all normal resin, reactants and catalysts systems.

Applications:

To maximize physical properties Intex recommends the use of 8-12% on the weight of the bath.

To reduce free formaldehyde on the fabric Intex recommends the use of 1-5% on the weight of the bath.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):

INTEX SUPERWET 90:

INTEX SUPERWET 90 is designed to be used with sulfur and vat dyes to increase penetration and reduce the foaming. Intex recommends the use of 0.1 to 0.25% INTEX SUPERWET 90 on the weight of the pad bath of 1.0 to 2.0 on the weight of the fabric in jigs, jets or becks.

INTEX SUPERWET 90 is also recommended for disperse, acid and pigment dye baths. It is especially good for dispersed and pigment padding solutions. It acts as a defoamer, wetting agent and dispersing agent.

In most continuous and jet applications, it either reduces or eliminates the need for a defoamer. It can be used to sink carpets in becks without causing foam.

INTEX SUPERWET 90 is anionic and should not be used in a bath with Ca, Mg, Zn or quaternary compounds.

INTEX CARRIER 96:

INTEX CARRIER 96 is designed for use as a jet machine dye carrier.

Typical Properties:

Activity: 74%

Consistency: Sl. viscous emulsion

Color: White

pH (5%): Approx. 7

Viscosity: Approx. 1000

Dispersibility: Emulsion disperses readily in water

INTEX CARRIER 96 was developed for use in dyeing polyester fabrics on the jet dyeing machine at elevated temperatures using disperse dyes. The product has replaced several other carriers which contained high levels of perchloroethylene and/or other chlorinated solvents.

INTEX CARRIER 96 also contains some lubricant to aid in preventing rope and crack marks during dyeing. A combination of several surfactants also aids in maintaining a compatible system without adding significantly to the foaming problem usually found in the jet machine.

A attempt has been made to insure the rinsability of the carrier from the fabric during the afterscour in order to avoid problems of dyestuff migration during drying.

While INTEX CARRIER 96 is not particularly sensitive to mixing methods, the prior dilution with water before addition of other chemicals is recommended, in order to avoid breaking the emulsion.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX CARRIER 98:**

INTEX CARRIER 98 is a combination carrier system developed specifically for pressure dyeing polyester on the jet machine.

Typical Properties:

Appearance: White Emulsion

Consistency: Viscous Liquid

Activity: 78-79%

Moisture: 21-22%

pH (as is): 9

Dispersibility: Emulsifies in cold water

INTEX CARRIER 98 was developed to incorporate not only solvents but also other components which assist in producing a level dyeing with a maximum utilization of dyestuffs. This carrier system has also been compounded with efficient emulsifiers so that the total level of surfactants is low. On certain jet machines, where foaming is a serious problem, a defoamer may be necessary. In some machines no defoamer is needed.

A dispersing agent is also incorporated, which helps hold the trimer in suspension and reduces the danger of re-deposition on the fabric.

It has been found in some cases that no additional anti-cracking agents are needed, since rope marks are normally at a minimum when this carrier is used. However, this depends largely on the running conditions within a given plant, and additional lubricants are often added as insurance.

INTEX CHLOROSOLV 107:

INTEX CHLOROSOLV 107 is trichloroethylene, a chlorinated solvent.

Description:

Stable, low boiling, colorless, heavy, mobile, toxic liquid. Use with adequate ventilation. Chloroform-like odor. Non-flammable, nonexplosive, and noncombustible. Boiling point is 86.7C. Specific gravity is 1.456-1.462. Flash point: none. Miscible with all common organic solvents; practically insoluble in water.

INTEX CHLOROSOLV 107 has been used extensively as a dry-cleaning solvent. Because of its boiling point, it is particularly adaptable for recycling and recovery.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX PLASTISOL 112-16 CHARCOAL:

INTEX PLASTISOL 112-16 CHARCOAL is a vinyl dispersion specifically formulated for high speed strand or fiber coating.

Vinyl dispersions are fluid suspensions of special fine particle size polyvinyl chloride resins in plasticizing liquids. When the system is heated to about 350F., fusion (mutual solubilization of resin and plasticizer) takes place. The dispersion turns into a homogeneous hot melt. When the melt is cooled below 140F., it becomes a tough vinyl coating with excellent physical properties such as flexibility, abrasion resistance, chemical resistance and excellent aging.

In the manufacture of glass fiber insect screening, a typical process would involve coating the yarns with the plastisol dispersion, weaving the yarns into a fabric and then heat setting to cause fusion of the yarns at the interstices.

Plastisol products are normally supplied to a customer under pre-arranged specifications as to color, viscosity, fusion point, etc., therefore product specifications are not shown.

INTEX LEVELER 115:

pH: 7.0-8.0

Appearance: Pale yellow liquid

INTEX LEVELER 115 is an excellent leveling agent for dyeing wool and nylon.

INTEX LEVELER 115:

- Retards the acid dyes to assure slow and level dyeing.
- Has exceptional ability to migrate the acid dyes to assure levelness after dyeing is complete.

INTEX LEVELER 115 also acts as a lubricant to reduce chafe marks and other mechanical damage to the fabric.

Intex recommends 1 to 3% of INTEX LEVELER 115 on the weight of the fabric.

INTEX SCOUR 118:

INTEX SCOUR 118 is a 50% active amine condensate designed primarily as a scouring agent for use on spun fabrics.

Typical Properties:

Appearance: Fluid

Color: Light yellow brown

Solubility: Infinite in water

pH 2% Sol.: 9.5-10.0

Spec. Gravity: 0.975+-0.005

Viscosity: 125+-25, #25 spindle, 20 rpm

Activity: 50+-2%

Acid Value: 3.0-6.0

INTEX SCOUR 118 has been found to have good wetting characteristics in the wet processing of yarns and fabrics. It is particularly useful, however, in scouring since it has good cleaning power and is relatively easy to rinse.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX SCOUR 125:**

INTEX SCOUR 125 is an excellent, non-flammable, general purpose cleaner for warp size build-up removal from sizing equipment.

Specific Gravity: 1.020+-0.01
pH - Concentrate: 12.0+-0.5
Color: Water White
Appearance: Clear Liquid

INTEX SCOUR 125 has been designed to remove starch, wax, PVA and acrylic build-up on textile equipment. It is most efficient when applied undiluted to build-up areas (pad rolls, size boxes, rolls, cans, etc.) while the equipment is still warm.

After allowing INTEX SCOUR 125 to remain on the equipment for 5-10 minutes, it may be rinsed and wiped clean easily.

Because INTEX SCOUR 125 also removes acrylic binder build-up, it is very useful in clean-up on pigment pad dye ranges.

INTEX SCOUR 125 is also very efficient for use in general drug room clean-up, and for this application may be cut 1:1 with water and used in normal curing procedures.

INTEX DEFOAMER 138:

Safe silicone defoamer
Compatible with all dyestuffs
Stable to high shear
Alkali stable

INTEX DEFOAMER 138 is a formulated low silicone antifoam and defoamer. It is formulated with a selected blend of low foam emulsifiers to assure compatibility with all dyestuffs and auxiliaries normally used in dyeing operations.

INTEX DEFOAMER 138 will not scum on surface of bath.

INTEX DEFOAMER 138 can be used in all equipment--atmospherically or pressure. It will not build up on heat exchangers.

Typical Properties:

Appearance: White Milky Emulsion
Ionic Charge: Nonionic
pH of 1% Sol'n: 7.0 to 8.0
Activity (as Silicone): 5%

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

JPS COMPOUND 150:

JPS COMPOUND 150 is a formulated mixture of fillers and binders designed for application to glass fiber fabrics used to make marine panels.

Typical Properties:

Solids: Approx. 70%
Color: White
Consistency: Paste
Viscosity: 7000 cps
pH: 8

Application of compounds of this nature may be made in several ways. Typically, a water dilution is made and the material padded on. Another procedure might be by knife coating. Although foaming techniques have not been used widely with this product, it is possible through proper formulation to apply even lighter applications in this manner.

While JPS COMPOUND 150 is designed to have low flammability characteristics, it may also be compounded with other products for improved properties.

INTEX LEVELER 152:

Odorless
Low foaming
Excellent compatibility
Improves wet and dry crock
Improves light fastness
Excellent color yield
Applicable on a variety of fabrics

INTEX LEVELER 152 is an anionic/nonionic emulsified dye carrier. It has virtually no odor and provides an excellent color yield while maintaining a low degree of foam.

INTEX LEVELER 152 readily emulsifies in water and is stable at all dyeing temperatures.

INTEX LEVELER 152 is compatible with all dyes and auxiliaries. It is compatible with electrolytes and contains enough reserve emulsifiers to remove any residual oil and dirt that may remain after preparation. It will not cause oil spots.

INTEX LEVELER 152 is specifically designed for use on 100% polyester, polyester/nylon, and polyester/wool fabrics.

Typical Properties:

Appearance: Yellow-Gold Liquid
pH (1% Soln.): 5.0+-1.0
Specific Gravity: 1.02+-0.01
Solubility: Emulsifies in Water

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):**INTEX SEQUESTERANT 159:****Typical Properties:**

Consistency: Liquid
Color: Dark Wine
pH (2% Solution): 10.5-11.5
Solubility: Soluble in cold water
Ionic nature: Anionic

INTEX SEQUESTERANT 159 is a blended chelate to insure excellent iron chelation over a broad pH range as well as Ca, Mg, Cu, Cr, Ni, etc.

INTEX SEQUESTERANT 159 is recommended for all dyeing and scouring procedures. Some plants because of excellent quality water feel they do not need a chelate but most metal contamination is introduced by the fabric being processed and the chemicals used.

Intex recommends the use of 0.1 to 0.25% of INTEX SEQUESTERANT 159 for use in most applications.

INTEX SEQUESTERANT 159 should not be used in bleaching formulations.

INTEX SCOUR 171:

INTEX SCOUR 171 has been formulated as a scour for use in fabric preparation.

Typical Properties:

Consistency: Liquid
Color: Light yellow
Solubility: Disperses in water
Ionic Nature: Anionic
Activity: 27%
pH: 7.0-7.5

INTEX SCOUR 171 is a blend of solvent with an anionic emulsifier, so that the product disperses with no difficulty in water.

When used at concentrations approaching 1% on the weight of the bath, the scour is helpful in removing sizing materials, waxes, etc., from the fabric to make a suitable base for subsequent dyeing and finishing operation, particularly when the scour bath is adjusted to a pH of 9 to 10 with soda ash.

Production runs on the cascade washer (rope form) have shown good cleaning capabilities and no problems with excessive foaming.

Depending on the size to be removed and the general condition of the fabric, it may be possible to run at a concentration less than 1% OWB.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX EMULSION 195:

Typical Specifications:

Total Solids: 38.0%
pH 5% Solution: 7.0
Active Silicone: 35.0
Emulsifier Type: Nonionic

INTEX EMULSION 195 is an aqueous emulsion of a dimethyl polysiloxane. It is a milky-white emulsion, infinitely dilutable with water. When diluting to the desired application level, slight paddle stirring is sufficient to effect complete dispersion of the concentrated emulsion.

Typical Applications:

As a textile hand modifier, 0.5 to 2% of INTEX EMULSION 195 is applied by conventional pad/dry application depending on the degree of softness and slickness desired.

Other uses include machine lubrication and mold release, especially in the manufacture of glassware.

INTEX CARRIER 208:

INTEX CARRIER 208 is a carrier for polyester dyeing, formulated to avoid the "resist spots" often experienced in beck dyeing.

Typical Properties:

Consistency: Liquid
Color: Light yellow
Solubility: Disperses readily in water
pH(5% solution): 7-8
Specific gravity: .962-.972

INTEX CARRIER 208 was formulated as a response to the demand for a non-biphenyl carrier for beck dyeing. It contains a blend of several carrier bases to afford maximum color yield with good leveling.

The amount of carrier to be used, as is well known, varies widely with equipment, liquor ratio, depth of shade, and a number of other factors. Generally, for medium shades, approximately 10% OWF should be adequate, but this will have to be determined in practice if more or less is necessary.

INTEX CARRIER 208 may be added to the dyebath over a fairly wide range of temperatures. Preferably, it is added at a 100-120F, and the fabric given some time to come to equilibrium before the dyes are added.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):**INTEX SOFTENER 215:**

INTEX SOFTENER 215 is an emulsion of high density polyethylene designed to give a good hand on resin treated fabrics with the additional property of lubricity to reduce needle cutting.

Typical Properties:

Consistency: Liquid
Color: Translucent beige
Solubility: Disperses in water
pH (as is): 8.0-9.0
Activity: 25%

INTEX SOFTENER 215 produces the slick hand generally associated with the high density grade polyethylenes. It has been found to produce an excellent hand on many fabric blends, particularly those containing substantial percentage of cellulosic fibers.

The product does not cause yellowing during cure nor does it smoke during the procedure. In practice, INTEX SOFTENER 215 has been found to cause no problems of bleeding and color migration often found in other types of nonionic liquid softeners.

INTEX SOLVENT 244:

INTEX SOLVENT 244 is a self-emulsifying blend of chlorinated solvent and emulsifier.

Product Characteristics:

Consistency: Liquid
Color: Pale yellow
Solubility: Emulsifies in water
pH(5% sol.): 7.0
Odor: Typical chlorinated solvent
Activity: 100%
Specific Grav.: 1.60

INTEX SOLVENT 244 is suggested as a prescour in the removal of mill oils and greases during preparation. Its principal use to date has been in the scouring of double knits to assist in removal of the mineral oil based coning lubricants used on the yarns prior to knitting. It is felt that the combination of solvent action and emulsifiers is an efficient means of removal.

INTEX SOLVENT 244 is often used as an after-scour or after-clear for disperse dyed polyester fabrics. A mixture of the solvent at the rate of about 5% OWF may be added into the jet during the cool down at about 180F.

INTEX SOLVENT 244 emulsifies readily in water to form a fairly stable mixture.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

INTEX SEQUESTERANT 259:

Broad Spectrum Chelating Agent
Stable Under Wide Range of Conditions

INTEX SEQUESTERANT 259 is a general chelating agent, useful in dyeing & scouring operations to prevent interference by metallic contamination.

Description:

INTEX SEQUESTERANT 259 is an aqueous solution of the tetrasodium salt of ethylenediamine triacetic acid.

Typical Properties:

Appearance: Clear Yellow Liquid
Active Ingredients: 20%
Specific Gravity: 1.13
pH(2% solution): 11.0-11.8
Pounds/Gallons: 9.4

Usage:

Chelation of various elements occurs over different pH ranges. Use levels of 0.1 to 1.0% on fabric weight are common.

In scouring, the presence of a chelating agent prevents formation of heavy metal soaps and other compounds which prevent good cleaning. Thus a cleaner base fabric affords a better substrate for dyeing.

INTEX DETERGENT 261:

INTEX DETERGENT 261 was developed as a highly efficient scouring compound, particularly for cleaning dyed yarn packages.

Typical Properties:

Appearance: Colorless liquid
pH(10% solution): 6.0-7.0
Activity: 48%
Solubility in water: Miscible in all proportions

The activity of INTEX DETERGENT 261 is based primarily on an ethoxylated non-ionic surfactant. For increased efficiency, however, a fast wetting anionic sulfonate has been added. A small percentage of solvent insures easy and rapid dispersion of the product and assists in penetration and scouring of the yarn.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX BINDER 268:**

Acrylic Print Binder
Excellent Crock Resistance
Non-Yellowing
Durable to Laundering

Print Binder 268 is an acrylic based polymer system designed for use as a "low crock" binder in pigment printing systems. It provides both crock resistance and resistance to laundering while retaining the light-fastness characteristics of pigment colors. The film is comparatively soft, thus producing a satisfactory hand.

Typical Properties:

Solids: 39-40%
Consistency: Liquid
Color: Opaque White
pH: 6.8-7.2
Viscosity: <150 cps
Solubility: Disperses in water
Tg: -18C.

INTEX BINDER 268 has been used extensively as a "low crock" binder on polyester/cotton sheeting fabrics and works on unfinished or finished fabric.

INTEX BINDER 273:

INTEX BINDER 273 is an acrylic copolymer designed to give good bonding characteristics as well as a fairly firm hand in finishing textiles.

Typical Properties:

Solids: 45-46%
Consistency: Liquid
Appearance: Milky white
pH as is: 4 to 5
Viscosity: Less than 100 cps

INTEX BINDER 273 has been used in finishing textiles to give a firm, full hand to fabrics, particularly when used in conjunction with a small amount of melamine/formaldehyde resin. Best results for permanence are also experienced when a small amount of acid-producing catalyst is used in the same bath.

INTEX BINDER 273 produces a film that does not yellow under normal drying and curing temperatures. The film also has good tensile strength and can even be applied as a binder for non-wovens. The cross-linked film is also quite resistant to washing and to dry-cleaning.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):

INTEX WETAID 315:

INTEX WETAID 315 is a sulfonated ester used as penetrant and wetting agent.

Typical Properties:

Activity: 65%
Consistency: Fluid
Color: Reddish Brown
pH (as is): 6.5
Solubility in water: Infinite
Density: 8.58 lb/gal.

INTEX WETAID 315 has been used extensively for a number of years in dyeing package yarn. Its primary use has been as an after-scour before rinsing and application of fixing agents. Not only do sulfonated esters have good wetting and penetration capabilities, they are also credited with improving the handling of fabrics in rope form. The product apparently acts as a lubricant to some degree and helps prevent crack and rope marks during dyeing. This family of products is generally compatible with most components of dyeing and finishing baths and thus has considerable versatility in textile finishing.

INTEX SOFTENER 395:

INTEX SOFTENER 395 is a specially formulated softener designed to produce a luxurious hand on sheared terry fabric.

Typical Properties:

Consistency: Liquid
Appearance: Faintly hazy
Solubility: Infinite in water
pH: 5+-1

INTEX SOFTENER 395 is a blend of softeners which produces a slick, soft hand on terry without sacrificing the water absorption characteristics. Application should be made by the typical wet-on-wet methods, or it may be applied in a conventional padding operation.

INTEX SOFTENER 395 contains some emulsifier components which are cationic in nature.

Other potential uses for this product have not been explored, and in those cases where cost will allow, it should be tried as a softener for apparel wear or even household fabrics.

No unusual mix procedures are necessary in using INTEX SOFTENER 395. Dilution with water to desired strength should present no problem.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**INTEX REACTANT 510:**

INTEX REACTANT 510 is a methylated glyoxal-urea-formaldehyde developed to produce fabrics with very low free formaldehyde.

Typical Properties:

Activity: 38%
Consistency: Liquid
Color: Pale Yellow
Solubility: Soluble in water
Odor: Slight formaldehyde
pH: 5.6 - 5.8

INTEX REACTANT 510 is a specially designed product to produce very low free formaldehyde when used in conjunction with INTEX CATALYST 550. It imparts the usual good durable press rating and shows normal tensil and tear.

INTEX recommends the use of 10 to 20% of INTEX CATALYST 550 on the weight of INTEX REACTANT 510 for precure fabric.

For post cure fabric, INTEX recommends the use of 10-20% INTEX CATALYST 58 on the weight of INTEX REACTANT 510.

INTEX REACTANT 632:

Durable press finish
Self catalyzed
Low residual formaldehyde

INTEX REACTANT 632 is a self-catalyzed methylated glyoxal-urea formaldehyde reactant, designed to produce fabrics with very low residual formaldehyde with durable press performance.

Typical Properties:

Consistency: Liquid
Color: Pale Yellow
Solubility: Complete in Water
pH: 3-4
Specific Gravity: 1.17+- .01
Free Formaldehyde: <0.3

INTEX REACTANT 632 was formulated based on the results from a considerable amount of work with etherified reactants. The incorporation of catalyst is to simplify mixing and for convenience of storing only one product in bulk in many cases.

It has also been found that the INTEX REACTANT 632 can sometimes be used at a level lower than that of the conventional product.

INTEX REACTANT 632 run on pre-cured fabric, when properly cured, can give minimum free formaldehyde ratings.

No special mixing procedures are necessary in making finish mixes with INTEX REACTANT 632.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):

INTEX SCOUR 707:

Concentrated detergent
Ionic/Nonionic detergent & emulsifier
Effective wetting agent for all fibers
Easily rinsed from goods
Stable to wide ranges of pH

INTEX SCOUR 707 is an excellent detergent for pre and post scouring polyester & polyester/cotton. Ease of rinsability makes it very useful for continuous processes.

INTEX SCOUR 707 is stable to a wide range of pH.

INTEX SCOUR 707 has no cloud point and dilutes very easily in water at any temperature.

Typical Properties:

Appearance: Slightly yellow to white liquid
pH of 5% Sol'n: 7.0+-1.0
Activity: 87% minimum

TEX-WET 1001:

Biodegradable wetting and rewetting agent

Characteristics:

TEX-WET 1001 is a surface active agent with outstanding wetting and rewetting properties. It remains highly efficient in hot and cold solutions and is stable in hard water, mild acid and mild alkaline liquors.

Typical Properties:

Type: Sodium Dioctyl Sulfosuccinate
Appearance: Clear
Solids Content, % by weight: 60.0+-1.0
pH 1% solution: 6+-0.5
Ionic character: Anionic
Weight per gallon: 8.8 lbs.

Application:

In most processes 0.2 to 0.5%, TEX-WET 1001 is sufficient to give instantaneous wetting and thorough penetration. Where rapid rewetting is desired 0.5 to 1.5% TEX-WET 1001 may be required depending upon the type and weight of fabric being processed.

TEX-WET 1001 is widely used in textile wet processing where alkalis are not encountered. Its use in intermediate processing provides fabric which can be run at high speeds through a subsequent process, such as Sanforizing, finishing, etc. Due to its anionic nature, TEX-WET 1001 should not be used in conjunction with cationic materials.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):**TEX-WET 1002:**

Low foaming wetting agent and dye assistant.

Outstanding Characteristics:

1. Low foaming and rapid wetting properties.
2. Assistant for dyeing with sulfur colors.
3. Assistant for dyeing of wool.

Properties:

Type: Phosphated alcohol
Appearance: Light amber liquid
pH: 7.0+-0.5
Characteristic: Anionic
Weight per Gallon: 8.8 lbs.

TEX-WET 1002 is readily soluble in water and forms clear, stable solutions.

TEX-WET 1002 possesses distinct sequestering properties, making it effective in hard water solutions. The detergent is compatible with anionic and nonionic dyestuffs, as well as most of the usual types of finishing agents that are not cationic. It should not be used with metal salt catalysts. TEX-WET 1002 possesses very low foaming characteristics and excellent wetting speeds.

TEX-WET 1010:

Low foaming wetting agent and dispersant.

Outstanding Characteristics:

1. Low foaming and powerful penetration properties.
2. Assistant for dyeing with sulfur colors.
3. Assistant for dyeing of greige goods.

Properties:

Type: Modified Phosphated Alcohol
Appearance: Light Amber Liquid
pH: 6.3-6.8
Characteristic: Anionic
Weight per Gallon: 8.75-8.85 lbs.

TEX-WET 1010 is readily soluble in water and forms clear stable solutions.

TEX-WET 1010 has a high degree of detergency and wetting properties. This product has distinct sequestering properties, making it effective in the presence of hard water. TEX-WET 1010 is compatible with almost all dyestuffs and with most of the usual types of anionic and nonionic finishing products.

Application:

In ordinary dyeing procedures, 0.1% to 0.5% TEX-WET 1010 is usually sufficient for good coverage and level dyeing.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

TEX-WET 1016:

TEX-WET 1016 is a modified phosphate alcohol.

Product Specifications:

Appearance: Light Amber Liquid
Solids, 1hr., 10 min. @ 110C.: 35.0+/-1.0%
pH, 1% Solution: 7-8
Ionic Character: Anionic
Weight per Gallon: 8.6

Typical Properties:

TEX-WET 1016 is a rapid wetting agent and is low foaming in character. It is readily soluble in water and forms clear, stable solutions. The product is stable in moderate concentrations of both acid and alkali (2-3% caustic).

TEX-WET 1016 remains effective in hard water and does not form insoluble salts with calcium or magnesium ions. It is compatible with most nonionic and anionic dyestuffs and finishing agents.

Recommended Uses:

TEX-WET 1016 is a rapid and thorough penetrant and is recommended for use in all phases of preparation, dyeing and finishing, especially where foaming is objectionable. It has been particularly satisfactory as an assistant for the application of sulfur colors, and in the dyeing of greige goods. The alkali stability of the product also suggests its use as a boil-off assistant. The low foaming characteristics of TEX-WET 1016 make it useful in high speed padding of anionic and nonionic finishes.

TEX-WET 1048:

Non-rewetting, wetting agent

Outstanding Characteristics:

1. Stable to metallic salt catalysts
2. Does not impart rewetability to fabrics
3. Compatible with permanent water repellents of any ionic nature.

Typical Properties:

Type: Ethylene ether condensate
Appearance: Thin, water clear liquid
pH: 8-9
Characteristic: Nonionic

TEX-WET 1048 is an excellent wetting agent with low foaming characteristics. Being compatible with both zinc nitrate and magnesium chloride, TEX-WET 1048 is recommended for use as a penetrant in resin baths.

Due to the fact that TEX-WET 1048 does not impart rewetability, it is effective when used in conjunction with permanent water repellents of any ionic nature.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):**TEX-WET 1051:**

A Sanforizing oil, wetting and rewetting agent

Outstanding Characteristics of TEX-WET 1051:

1. Economical compressive shrinkage aid
2. Rapid wetting agent
3. Produces fabrics with long lasting rewetting properties
4. Provides lubrication and softness to fabrics
5. Easy to handle liquid
6. Non-toxic
7. Water dilutable
8. Non-corrosive

Properties:

Appearance: dark amber liquid
Viscosity, 100 degrees F.: 25-40 cps.
Activity: 98% minimum
Weight per Gallon: 7.5 lbs.

TEX WET 1068:

TEX-WET colloidal silica is an aqueous colloidal dispersion of silica particles varying in solids content and particle size.

Properties:

Particle Size(millimicrons): 20
Solids Content: 30%
Appearance: Hazy solution turning clear with bluish cast on water dilution.
Odor: None
Ionic Charge: Anionic
pH: 10
Freeze Thaw: Freezes at 32F., irreversible precipitate upon thawing.

Application:

The various TEX-WETS are colloidal aqueous silica dispersions widely used in textile finishing to control yarn slippage, modify hand, and control luster. However applied, these products can be used to stabilize weave and to impart special finish effects to fabrics made of cotton, wool, synthetic fibers and filaments, and to mixtures. Treatment gives outstanding finishes on nylon and Dacron marquisettes, rayon fabrics and viscose rayon suitings. Application requires no special equipment nor curing. The dispersions are not cationic and, therefore, cannot be applied by exhaustion onto the fabric.

INTEX CHEMICALS, INC.: Textile Chemicals(Continued):

TEX-WET 1070:

Salt of a complex organic phosphate ester.

Properties:

Type: Phosphated ester
Appearance: Thin clear liquid
Activity: 65-68%
pH: 8.0-9.0
Ionic Nature: Anionic

Suggested Uses:

Continuous caustic boil-off assistant
Kier boil assistant
Bleaching assistant
Emulsifying agent
Anti-static agent

TEX-WET 1070 has a rapid wetting speed; performs as an excellent detergent; has a cloud point above the boil; has a moderate foaming action; and is stable to 5-10% caustic soda. A suggested starting level for evaluation is 0.25%.

TEX-WET 1072:

TEX-WET 1074:

TEX-WET 1075:

TEX-WET 1076:

TEX-WET 1079:

Description:

TEX-WET colloidal silica is an aqueous colloidal dispersion of silica particles varying in solids content, particle size, and pH.

TEX-WET 1072:

Particle Size(Millimicrons): 20
Solids Content %: 30
Odor: None
Ionic Charge: Anionic
pH: 10

TEX-WET 1074:

Particle Size(Millimicrons): 14
Solids Content %: 40
Odor: None
Ionic Charge: Anionic
pH: 10

INTEX CHEMICALS INC.: Textile Chemicals(Continued):

TEX-WET 1072:

TEX-WET 1074:

TEX-WET 1075:

TEX-WET 1076:

TEX-WET 1079(Continued):

TEX-WET 1075:

Particle Size(Millimicrons): 20

Solids Content %: 50

Odor: None

Ionic Charge: Anionic

pH: 10

TEX-WET 1076:

Particle Size(Millimicrons): 20

Solids Content %: 40

Odor: None

Ionic Charge: Anionic

pH: 10

TEX-WET 1079(Deionized):

Particle Size(Millimicrons): 20

Solids Content %: 34

Odor: None

Ionic Charge: Anionic

pH: 3.5

Introduction:

The various TEX-WETS are colloidal aqueous silica dispersions widely used in textile finishing to control yarn slippage, modify hand, and control luster.

However applied, these products can be used to stabilize weave and to impart special finish effects to fabrics made of cotton, wool, synthetic fibers and filaments, and to mixtures. Treatment gives outstanding finishes on nylon and Dacron marquisettes, rayon linings, satins, taffetas, ribbons, rayon and wool blends, fiberglass fabrics and viscose rayon suitings. Application requires no special equipment and no curing.

The dispersions are not cationic and, therefore, cannot be applied by exhaustion onto the fabric.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

TEX-WET 1090:

Polyvinyl Acetate Homopolymer Emulsion Dispersion

Specifications:

Minimum Total Solids: 55%
Viscosity, cps: 800-1000
pH: 3.5-5.5
Residual Monomer: 0.5% max.
Molecular Weight(number av.): 30,000-60,000 mostly cross
linked

Typical Emulsion Properties:

Particle size: Many between 0.1-1.0 mic.
Some between 1.0-5.0 mic.
Particle charge: Essentially nonionic
Borax stability: Coagulates
Weight per Gallon (25C): 9.2 lbs.
Mechanical Stability: Excellent
Solvent tolerance alcohol: 55-60
Trichloroethylene: 80-90
Carbon Tetrachloride: 60-65

Typical Film Properties:

Bond time, sec.: 20-30
Woodshear bond strength, psi: 3000-3400
Heat seal temp of film, F.: 195-205

TEX-WET 1104:

Anionic Detergent and Emulsifier

Outstanding Characteristics:

1. Soluble in aromatic and chlorinated solvents
2. Inhibits corrosion in liquid formulations maintained at pH of 9.2 or above.
3. Compatible with and capable of solubilizing other surfactants.
4. 100% active product.

Properties:

Type: Complex organic phosphate ester
Appearance: Viscose liquid at 77F.
pH: 1.5-2.5(in 10% solution at 77F.)
Weight per Gallon: 9.2 lbs.
Characteristic: Anionic
Acid Value: 100+-5

TEX-WET 1104 is a 100% active free acid which may be converted into a sodium, potassium, ammonium or amine salt; whichever is most suitable for a given application.

INTEX PRODUCTS, INC.: Textile Chemicals(Continued):**TEX-WET 1118:**

Biodegradable Dodecylbenzene

Specifications:

Appearance: Water white, clear liquid

Specific Gravity: 0.86

2-Phenyl Isomer Content: 25-35%

Carbon Number Distribution:	% By Weight
C9 or less	2
C10 + C11	50
C12	25
C13	15
C14 and greater	8

Boiling Range, C: IBP=280; Dry Point=325

Moisture: 0.05% maximum

Unulfonatable Oils: 2% maximum

Flash Point, COC, F.: 310-340F.

TEX-WET 1140:

Light straw-colored liquid hydrotrope

Typical Properties:

Chemical Composition: Sodium Xylene Sulfonate

Ionic Nature: Anionic

Appearance: Light straw-colored liquid

Activity: 40%

pH: 7.5-10.5

Flash Point: None

Weight Per Gallon: 9.75 pounds

Use Applications:

TEX-WET 1140 is a versatile hydrotrope used in formulating light and heavy-duty detergents and cleaners for household and industrial use. It acts as a solubilizing and coupling agent in concentrations as low as 5%.

In formulating detergents and scouring agents for textile wet processing, TEX-WET 1140 is a very economical, non-flammable cloud point depressant.

Use Advantages:

TEX-WET 1140 may be used in lieu of low molecular alcohols such as isopropyl alcohol while maintaining product solids.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

TEX-WET 1143:

Acid form of complex organic phosphate ester

Properties:

Type: Phosphated ester
Appearance: Viscous clear liquid
Activity: 100%
pH: 1.5-2.0
Ionic Nature: Anionic

Suggested Uses:

Continuous caustic boil-off assistant
Kier boil assistant
Bleaching assistant
Detergent intermediate
Emulsifying agent
Anti-static agent

The 40% product has a rapid wetting speed; performs as an excellent detergent; has a cloud point above the boil; has a moderate foaming action; and is stable to 5-10% caustic soda.

TEX-WET 1158:

An emulsifier and a detergent.

Outstanding Characteristics:

1. Excellent dyeing assistant.
2. Superior wetting, dispersing and emulsifying properties.
3. Stable over a wide pH range.
4. Insensitivity to hard water.
5. High solids.

Properties:

Type: Sodium Alcohol Ether Sulfate
Appearance: Pale-amber liquid
Active Content: 57% Minimum
Weight per Gallon: 8.7 lbs.
Characteristic: Anionic

TEX-WET 1158 offers outstanding properties in wetting, dispersing, emulsifying and detergency, in addition to its performance as a fabric scouring agent.

Application:

In processing cotton fabric, TEX-WET 1158 will greatly improve the penetration and wetting of bleaching solutions, such as hydrogen peroxide. When used in the dyeing process, TEX-WET 1158 will completely and quickly wet-out the goods--and will stabilize the dye bath.

TEX-WET 1158 is also used in the dyeing operation for synthetic fabric, since it will help dye penetration by improving the wet-out of the fabric.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**TEX-WET 1197:**

Dodecylbenzene Sulfonic Acid (Biodegradable)

Typical Properties:

Activity: 97%
Appearance: Reddish-brown liquid
Color, Klett (5% aqueous solution of free acid): 60
Free Oil: 1.5% maximum
Acid Number: 180-190
Percent Water: 0.75% maximum
Total Sulfates as H₂SO₄: 2.0% maximum
Weight per Gallon: 8.8 lbs.

TEX-WET 1197 is the acid form of a detergent intermediate. To be rendered most effective, it should be converted to the salt form by neutralizing with an alkali.

TEX-SOFT 1240:

Polyethylene emulsion

Outstanding Characteristics:

1. Completely stable in resin bath finishes.
2. Imparts excellent needle lubricity, tear, and abrasion resistance.
3. Very low emulsifier content for a higher solids product.
4. A pure high performance polyethylene containing no waxes.
5. Higher polyethylene content for greater formulation economy
6. Higher product solids for freight economy and less storage space.

Properties:

Type: Polyethylene emulsion
Appearance: Milky white
pH: 7.5 - 8.0
Total Solids: 40+-0.5%
Total Emulsifier: 5+-0.2%
Ionic Nature: Nonionic
Particle Size: Less than 0.1 micron

Stability:

Dilution: No coagulation
Mechanical: Greater than 1 minute in Waring Blender
Acid: No coagulation
Polyvalent Metal Ions: No coagulation
pH: 1 to 12
Freeze-Thaw: Zero cycles
Shelf: Over 6 months at 70-80F.
Weight per Gallon: 8.1 lbs.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

ADHERE-TEX 1500:

Adhesive for Water-phase Screen Printing of Pigment Colors.

Outstanding Characteristics:

1. Non-yellowing on fabric in curing cycle.
2. High solids - Will permit greater use dilutions.
3. Very good "Green Tack."

Properties:

Type: Polymer

Appearance: Hazy Liquid

Weight per Gallon: 8.5 lbs.

ADHERE-TEX 1500 is a resin adhesive, designed for outstanding performance on automatic screen printing equipment. When run under normal operating conditions, it is of particular value since no yellowing will occur on the back of the fabric as it proceeds through the high temperature curing cycle. Another feature of ADHERE-TEX 1500 that has added greatly to its acceptance by screen printers is the ease with which this product will rinse off belts and equipment.

ADHERE-TEX 1500 adhesive is used when pigment printing cotton, cotton blends, and most synthetic fabrics including fiberglass. The problem of mildew formation is eliminated with this adhesive, since it is not a starch or dextrin-base product.

ADHERE-TEX 1505:

Adhesive for Water-phase Screen Printing of Pigment Colors

Outstanding Characteristics:

1. Non-yellowing on fabric in curing cycle.
2. High solids - Will permit greater use dilutions.
3. Very good "Green Tack."

Properties:

Type: Polymer

Appearance: Hazy Liquid

Weight per Gallon: 8.5 lbs.

ADHERE-TEX 1505 is a resin adhesive, designed for outstanding performance on automatic screen printing equipment. When run under normal operating conditions, it is of particular value since no yellowing will occur on the back of the fabric as it proceeds through the high temperature curing cycle. Another feature of ADHERE-TEX 1505 that has added greatly to its acceptance by screen printers is the ease with which this product will rinse off belts and equipment.

ADHERE-TEX 1505 adhesive is used when pigment printing cotton, cotton blends, and most synthetic blends including fiberglass.

ADHERE-TEX 1505 has an additive which provides a slower drying characteristic.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**ADHERE-TEX 1510:**

A semi-permanent screen print adhesive

Specifications:

Appearance: a thin, milky latex emulsion
Solids: 54% minimum
pH: 5+-0.5
Ionic Nature: anionic
Borax Stability: stable
Freeze Stability: emulsion harmed if frozen
Solvent Tolerance: good

Application:

ADHERE-TEX 1510 is a semi-permanent pressure sensitive adhesive which develops outstanding tack when the cast film is dried. The adhesive properties may be modified by dilution with water, thickening, or blending with other polymers such as TEX-WET 1089, a polyvinyl acetate emulsion.

T-C 1803:

A liquid overspray to fibers for controlling dust, static, and providing fiber lubrication.

Outstanding Characteristics:

- * Provide outstanding dust and fly control of fibers in the opening-picking-carding operations.
- * Provides fiber-to-metal lubricity.
- * Imparts limited static control.
- * 100% active product.
- * Enhances fiber control.
- * Easily removed in the desize step.

Application:

T-C 1803 is applied or oversprayed to stock in the opening-picking-carding operations by a spray or mist system. It is applied as received by pumping the fluid through spray or mist nozzles.

Applications ranging from 0.5% to 1.5% based on fiber weight are recommended depending upon fiber type, blend, processing system, and the amount of fiber control to meet dust level standards.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):

T-C 9080:

Oil, grease and soil remover for greige fabrics and yarns.

Outstanding Characteristics:

1. Non-flammable
2. Non-toxic
3. Does not require use of spray equipment for application
4. Most effective for removal of butyl stearate and other fatty additives to knit yarns and fabrics.

Typical Properties:

Type: Highly effective blend of solvents and detergents
Appearance: Clear, blue liquid
Weight per gallon: 8.5 lbs.

T-C 9080 is a non-flammable, non-toxic spot remover designed for application to soiled fabrics during the inspection. T-C 9080 is also most effective as the detergent in a scouring bath for knit goods to facilitate removal of yarn lubricants.

Application:

This product may be applied with standard spot removal equipment.

T-C 9100:

Soil and grease remover for greige fabrics. Size box cleaner.

Properties:

Type: Mixture of solvents and detergents
Appearance: Clear, pale yellow liquid
Weight: 8.2 lbs. per gallon

T-C 9100 is a specially formulated product containing a mixture of solvents and detergents that, when combined with an effective alkaline scour, will perform as a greasy soil remover. T-C 9100 is applied onto grease spots and other soil areas on greige fabrics during the inspection operation. It is applied sparingly to soiled areas as it is received, and should not be diluted with water for use. It may be applied by any convenient method, but preferably by a brush or dauber.

T-C 9100 is particularly recommended for use on polyester/cotton blends. It is equally as effective on 100% cotton and other cotton/synthetic blends.

T-C 9100 is effective when applied to soiled fabric which is to be heat-set prior to desizing or scouring.

T-C 9100 is an excellent size box cleaner for removal of hard size and wax.

INTEX CHEMICAL, INC.: Textile Chemicals(Continued):**T-C 9180:**

T-C 9180 Compound is the gel form of a natural gum binder in combination with adequate preservatives and defoaming agents.

T-C 9180 Compound is used in combination with starch, compounds and/or wax as a sizing agent for cotton and staple fiber yarns. The product has outstanding film forming and adhesive properties along with uniform penetration of the yarn to give good elasticity and smoothness.

T-C 9180 Compound is easily removed by conventional desizing and scouring methods.

Product Specifications:

Typical chemical analysis:

Total Solids, 110C, 80 minutes: 5.9%

Ether Insoluble Material (Starch, Gum, Salts): 5.8%

Total Fats: 0.0%

T-C 9190:

A 100% fat size compound formulated for use with starches, CMC and gums to promote good lubrication to the size film.

Properties:

Appearance: Firm paste

Total Fats: 100%

Saponification Value: 95-105

Unsaponifiable Fats: 45%

Saponifiable Fats: 55%

Characteristics:

1. An economical, easy to handle size compound.
2. Provides good lubrication to the size film.
3. Enhances film flexibility of starch sized yarns.
4. Balanced blend of non-toxic lubricants and plasticizers.

LONZA INC.: Quaternaries:

Fabric Conditioners:

CARSOSOFT S-75:

Tallow Imidazolinium Methosulfate
Quaternium-27
Liquid
Cationic
% Active: 75
Lbs./Gallon: 7.7
Fabric softener, antistat

CARSOSOFT S-90:

Tallow Imidazolinium Methosulfate
Quaternium-27
Paste
Cationic
% Active: 90
Lbs./Gallon: 8.0
Fabric softener

CARSOSOFT S-90M:

Tallow Imidazolinium Methosulfate
Quaternium-27
Paste
Cationic
% Active: 90
Lbs./Gallon: 8.2
Fabric softener, good hard-water tolerance

CARSOSOFT T-75:

Ditallow Diamido Methosulfate
Quaternium-53
Liquid
Cationic
% Active: 75
Lbs./Gallon: 7.8
Fabric softener

CARSOSOFT T-90:

Ditallow Diamido Methosulfate
Quaternium-53
Paste
Cationic
% Active: 90
Lbs./Gallon: 8.3
Fabric softener

LONZA, INC.: Quaternaries(Continued):

Fabric Conditioners(Continued):

CARSOSOFT CFI-75:

Alkyl Imidazolinium Methosulfate

Clear Liquid

Cationic

% Active: 75

Lbs./Gallon: 7.9

Fabric softener for preparation of clear liquid concentrates

Industrial Quaternaries:

BARQUAT CME-A:

Cetyl Morpholinium Ethosulfate

Quaternium-25

Solid

Cationic

% Active: 92 minimum

BARQUAT CME-35:

Cetyl Morpholinium Ethosulfate

Quaternium-25

Liquid

Cationic

% Active: 35

Lbs./Gallon: 8.5

Superior antistat, combing aid and detangling agent, textile lubricant

BARQUAT CT-29:

Cetyl Trimethyl Ammonium Chloride

Cetrimonium Chloride

Liquid

Cationic

% Active: 29

Lbs./Gallon: 8.1

Coagulating agent in the manufacture of antibiotics.

LONZA, INC.: Tertiary Amines:

Alkyl Imidazoline Amines:

UNAMINE C:

Coco Hydroxyethyl Imidazoline
Liquid/Solid
% Active: 92
Lbs./Gallon: 7.8

UNAMINE O:

Oleyl Hydroxyethyl Imidazoline
Liquid
% Active: 92
Lbs./Gallon: 7.8

UNAMINE T:

Tall Oil Hydroxyethyl Imidazoline
Liquid
% Active: 92
Lbs./Gallon: 7.8

UNAMINE S:

Stearyl Hydroxyethyl Imidazoline
Solid
% Active: 92

Chemical intermediate, acid detergents, agricultural sprays,
metal and textile processing.

MERIX CHEMICAL CO.: MERIX Anti-Statics:**#79 Concentrate:**

- for Hard Surfaces
- * Plastics & Paper
- * Solar Conductors
- * Computers & Electronics

#79-OL Concentrate (OdorLess):

- for Soft Surfaces
- * Carpets
- * Textiles
- * Polyethylenes

Function: Removes and stops static and electro-static charges on all types of soft surfaced polyethylenes, linear, polyethylenes, fabrics, textile fabrics, natural and synthetic yarns and all types of carpets and carpeting.

Appearance: Clear, neutral, odorless, invisible when dried either by itself or after water dilution.

Flashpoint: None. Non-flammable

Recommended for:

- Automotive
- Bags - burlap, cotton
- Belts - canvas, leather, plastic, industrial type
- Carpets, rugs
- Data rooms
- Dry-cleaning
- Explosion retardant
- Foams
- Hospital operating rooms
- Hotels, offices
- Indicators
- Laundries
- Lingerie
- Leather chairs
- Leather
- Linear Polyethylenes
- Mining
- Munitions manufacture
- Nylon yarns
- Plastics
- Polyester yarns
- Polyethylenes
- Rubber
- Saran
- Sewing needles and sewing rooms
- Textiles - natural or synthetic, to prevent sparks and clinging
- Other

MERIX Anti-Static #79 Special:

Low Sodium/Low Calcium Concentrate

Recommended for hard surfaces and plastics used in highly sensitive applications.

MONSANTO CO.: STEROX DJ Surfactant:

Grade: Technical

General Description: A viscous, liquid, nonionic surfactant

CAS No. 9014-92-0

Molecular Weight: Nominal 702

Specifications:

Appearance: Clear, no visible extraneous matter

Color, APHA: 100 Maximum

Odor: Typical

Moisture, Karl Fischer: 0.4% Maximum

pH, 1% Solution @ 25C: 6.0-7.5

Cloud Point, 1% Aqueous Solution: 38-42C

Ash: 0.1% Maximum

Active: 99.5% Minimum

Key Properties:

STEROX DJ surfactant is an all-purpose surfactant with a generally lower degree of foaming compared to other alkylphenol-based nonionics. It is an extremely effective detergent at temperatures below 38C (100F) and can be compounded with phosphates and the usual detergent builders for a wide range of applications.

Applications:

- * Dyeing assistant, soaping off, kier boiling and other wet processing aid in textile industry
- * Felt washing, pitch removal and rewetting agent in paper processing
- * Wetting aid for leather
- * Emulsifier in metal cleaning compounds
- * Emulsifier for toxicant concentrates
- * Stabilizer in latex formulations
- * Processing aid and intermediate for chemical industry

MONSANTO CO.: STEROX ND Surfactant:

Grade: Technical

General Description: A viscous, liquid, nonionic surfactant

CAS No.: 9016-45-9

Molecular Weight: Nominal 396

Specifications:

Appearance: Clear, no visible extraneous matter

Color, APHA: 100 Maximum

Odor: Typical

Moisture, Karl Fischer: 0.4% Maximum

pH, 1% Solution @ 25C: 6.0-7.5

Ash: 0.1% Maximum

Active: 99.5% Minimum

Hydroxyl Number: 135-150

Key Properties:

STEROX ND surfactant has excellent oil-soluble surfactant properties which make it useful in grease cutting and emulsification. It is very soluble in nonpolar solvents and is miscible in water. It is often used in conjunction with higher mole ethoxylates to improve degreasing and oil-cutting efficiency.

Applications:

Agricultural Products:

- * Emulsifier for toxicants
- * Wetting agent for formulations
- * Light oil emulsifier

Leather:

- * Blended with STEROX NJ or NM in soaking

Metal Cleaning:

- * Grease cutting
- * Light oil emulsifier
- * Blended with higher ethoxylates (such as STEROX NJ, NM) to formulate solvent cleaners

Paint and Coatings:

- * Freeze-thaw stabilizer (latex)
- * Color development aid
- * Additive emulsifier

Petroleum Additives:

- * Ashless corrosion inhibitor for 2-cycle engine oils
- * Sludge dispersant for fuel
- * Additive to prevent carburetor icing and gas line freeze

Miscellaneous:

- * Polyvinyl acetate plasticizer
- * Soap for dry cleaning (both chlorinated and petroleum solvents)

MONSANTO CO.: STEROX NJ Surfactant:

Grade: Technical

General Description: A viscous, liquid, nonionic surfactant

CAS No.: 9016-45-9

Molecular Weight: Nominal 625

Specifications:

Appearance: Clear, no visible extraneous matter

Color, APHA: 50 Maximum

Odor: Typical

Moisture, Karl Fischer: 0.4% Maximum

pH, 1% Solution @ 25C: 6.0-7.5

Cloud Point, 1% Aqueous Solution: 51-56C

Ash: 0.1% Maximum

Active: 99.5% Minimum

Key Properties:

STEROX NJ surfactant is one of the most versatile nonionic surfactants known. It is used in almost every type of industrial surfactant application because it is a powerful detergent, emulsifier and processing aid. This surfactant performs best at temperatures below 51C (124F).

Applications:

Agricultural, Dairy and Food Industries

Building Materials

Leather:

* Blended with STEROX ND in soaking

* Blended with STEROX NF in fatliquoring

* Degreasing

Metal Cleaning

Paints and Coatings

Paper

* Rewetting agent

* Felt washing

* Leveling agent

* Pitch control

Textiles:

* All areas of textile washing

* Wool scouring

* Kier boiling

* Leveling agent

Miscellaneous

MONSANTO CO.: STEROX NK Surfactant:

Grade: Technical

General Description: A viscous, liquid, nonionic surfactant

CAS No.: 9016-45-9

Molecular Weight: Nominal 673

Specifications:

Appearance: Clear, no visible extraneous matter

Color, APHA: 120 Maximum

Odor: Typical

Moisture, Karl Fischer: 0.4% Maximum

pH, 1% Solution @ 25C: 6.0-7.5

Cloud Point, 1% Aqueous Solution: 66-70C

Ash: 0.1% Maximum

Active: 99.5% Minimum

Key Properties:

STEROX NK surfactant is similar to STEROX NJ but is used where a higher temperature or higher foam is desired. This surfactant performs best at temperatures below 66C (151F).

Applications:

Agricultural, Dairy and Food Industries

Building Materials

Leather

* Blended with STEROX ND in soaking

* Blended with STEROX NF in fatliquoring

* Degreasing

Metal Cleaning

Paints and Coatings

Paper:

* Rewetting agent

* Felt washing

* Leveling agent

* Pitch control

Textiles:

* All areas of textile washing

* Wool scouring

* Kier boiling

* Leveling agent

Miscellaneous

MONSANTO CO.: STYMER S Resin For Warp Sizing:

Synthetic Size for Filament Acetate Warps

Product Description:

STYMER S is the sodium salt of a long chain synthetic resin. It is readily soluble in water to give slightly alkaline, essentially clear solutions.

Some of the properties of STYMER S are:

Form: Free-flowing, fine powder

Odor: Faint, aromatic

Solubility: Soluble in water

Stability: Excellent under normal conditions

pH: 7.5 to 8.5

Color: Light amber--APHA-50

Clarity: Very slight haze

Water dilution: Uniformly dilutable

Specific Gravity: 1.005 at 140F

Surface tension: 57 at 86F

The Advantages of STYMER S:

Mixing:

STYMER S is a synthetic resin. By adhering strictly to manufacturing specifications, uniformity standards not found in natural products are maintained. This feature, plus the fact that few additives are used, simplifies and standardizes the preparation of sizing solutions.

Solutions of STYMER S are perfectly stable, do not mildew or sour and can be kept indefinitely. Large batches can be made up at one time--a further assurance of day-to-day uniformity. Small lots and "leftovers" do not have to be thrown away.

Sizing:

At the slasher, solutions of STYMER S resin will not foam, except under very rare conditions. Hard size does not form at the nip during leasing and normal stops. In fact, leasing in the size is the usual practice.

When can temperatures are right, there is no sticking and build-up on the dry cans. Many mills run set after set, week in and week out, without washing down the dry cans

Weaving:

Billions of yards of warps sized with STYMER S resin have been woven successfully. It has proved its advantages in bright and dull yarns, for high and low sley, and on taffetas, plain weaves, twills, French crepes, tissue failles, satins, shirtings, luana, shantung, flat crepes, Bedford cords, georgettes and other construction.

De-Sizing

As a water-soluble resin, STYMER S is easily removed by a mill scour followed by a thorough rinsing. STYMER S itself imparts detergent action. Complete removal of size helps dyeing and finishing.

NATIONAL STARCH AND CHEMICAL CORP.: Dyeing Assistants:**Acrylic Fibers:****RETARDER 895-B:**

Retarding agent for basic colors on acrylic fibers or cationic dyeable polyester--cationic.

PROTODYE 3417:

Leveling agent for basic colors on acrylic fibers--cationic.

PROTODYE A:

Compatibilizer for simultaneous dyeing of anionic and cationic dye systems--amphoteric.

PROTODYE HTR:

Excellent retarding agent for rapid dye systems or acrylics--cationic.

PROTOWET C:

Dyeing assistant; emulsifier; dye dispersant for dyeing of cellulosic fibers--anionic.

PROTOWET MB:

De-aerating, wetting, and dye leveling agent for package or raw stock dyeing--anionic.

PROTOWET 60:

Excellent scouring agent for removal of loose dyestuff; good dye dispersing properties--anionic.

Nylon Fibers:**PROTODYE 5EDH-2:**

Leveling agent for the dyeing of nylon--non-ionic.

PROTODYE YL:

Leveling/dispersing agent for acid dyeing of nylon--non-ionic.

DYLEV NC:

Leveling agent for nylon dyeing using acid or disperse dyes--anionic.

Polyester Fibers:**PROTODYE M:**

Excellent dispersant/leveling agent for dyeing of polyester; prevents agglomeration of dyestuff--anionic.

Dye Fixatives:**DYEFIX DD:**

Does not contain formaldehyde; does not hurt light fastness; applied by padding or exhaustion--cationic.

DYEFIX 3152:

Resinous complex dye fixative; gives good wash fastness; can be exhausted or padded--cationic.

PROTODYE WN:

Reserve and fixing agent for polyamide fibers--anionic.

NATIONAL STARCH AND CHEMICAL CORP.: Fiber and Yarn Processing Aids:

Fiber Lubricants:

SPINZIT LC Conc.:

Applicable for continuous heat setting; good light fastness; adds control to harsh cohesive fibers; excellent fiber to fiber lubricity---anionic.

SPINZIT 1800 Conc. Super:

Suitable for all types of heat setting; low cohesion; excellent fiber to fiber lubricity---anionic.

SPINZIT NP:

Low to medium cohesion; good fiber to fiber lubricity; contains mineral oil; does not contribute to scroop---amphoteric.

SPINZIT BHK:

High solids; suitable for continuous heat setting; medium fiber to fiber and fiber to metal lubricity---anionic.

SPINZIT BML:

High solids; applicable for continuous heat setting; medium fiber to metal properties; fair to good fiber to fiber lubricity---anionic.

SPINZIT 842:

For acrylics and other harsh fibers; softens fibers; good fiber to fiber lubrication; medium fiber to metal lubricity---anionic.

SPINZIT 1811A:

High solids; suitable for all types of continuous heat setting; good fiber to fiber and fair fiber to metal lubricity---anionic.

SPINZIT 97E:

Work horse lubricant; mid-range lubricity and cohesion; contains mineral oil---anionic.

SPINZIT 97EZC:

SPINZIT 97E with antistat properties---anionic.

SPINZIT CW:

Excellent lubricant for fibers spun on woolen system, low fiber to fiber lubrication with moderate scroop; high cohesion---anionic.

SPINZIT HC:

High solids; suitable for continuous heat setting; excellent fiber to metal lubricity; good fiber to fiber lubricity---anionic.

**NATIONAL STARCH AND CHEMICAL CORP.: Fiber and Yarn Processing
Aids(Continued):**

Fiber Lubricants(Continued):

SPINZIT 10P:

Antistat properties; high solids; good fiber to fiber lubricity and excellent fiber to metal lubricity--anionic.

SPINZIT 841:

High solids; good antistat properties; suitable for continuous heat setting; contributes to scroop; high cohesion properties--anionic.

SPINZIT 841LF:

Low freeze point--less cohesive than SPINZIT 841--anionic.

SPINZIT 819A:

Contains mineral oil; high fiber to metal lubricity;--anionic.

Yarn Lubricants:

TUFTEZE NPE:

All purpose wet winding lubricant and yarn conditioner; antistat properties--anionic.

SYLWAX SS:

Provides softness to yarns; excellent lubricant for polyester/cotton and cotton yarns--anionic.

TUFTEZE KD:

Cationic lubricant for yarn or raw stock--aids in preventing dye stuff migration.

TUFTEZE A3X:

Concentrated lubricant designed for heat set and unheat set yarns. Aids in weight retention--anionic.

TUFTEZE SUPER 2:

For application to filament yarns; high cohesion lubricity--anionic.

PERMAFIN 20:

Excellent beaming lubricant for long chain Indigo dyeing--polyelectrolyte.

NATIONAL STARCH AND CHEMICAL CORP.: Fiber and Yarn Processing
Aids(Continued):

Antistats:

ZERO C:

Antistat for all fibers; effective at low levels--amphoteric.

ZERO ZQ:

Antistat for all fibers; very effective--cationic.

ZERO 1669:

Anionic antistat for all fibers.

ANTISTAT 3574:

Nonionic antistat for all fibers.

ANTISTAT 895-B:

Cationic antistat for all fibers; effective at very low concentrations.

Tints:

TINZITS PE:

Complete color range of fugitive tints for polyester, acrylic, and cotton/polyester fibers.

TINTZOLS:

Complete color range of fugitive tints for synthetic fibers and wool

NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals:**Glyoxal Reactants:****HYLITE LF:**

Gives excellent wash/wear properties and shrinkage control; for pre- or post-cure application.

PROTOREZ 4897:

Pre-catalyzed, un-buffered glyoxal reactant.

PROTOCOL C:

Buffered to give very good shade control; gives reduced fiber degradation; good on white fabrics; for pre- and post-cure application.

PROTOREZ 5198:

Modified glyoxal reactant that gives excellent shrinkage control.

PROTOREZ JMS:

Gives low fabric formaldehyde residuals while giving excellent fabric properties; for pre- or post-cure work.

PROTOREZ 2NA:

Alkoxy derivative that gives very low fabric formaldehyde residuals; excellent fabric properties for pre- or post-cure work.

PROTOREZ KLM:

Pre-catalyzed version of PROTOREZ 2NA; can be flash cured.

PROTOREZ 5319:

Alkoxy derivative that gives very low fabric formaldehyde residuals without sacrificing other fabric properties; for pre- or post-cure application.

PROTOREZ 5369:

Pre-catalyzed version of PROTOREZ 5319; allows for quick curing.

PROTOREZ BA:

Modified glyoxal reactant that gives less than 200 ppm of fabric formaldehyde; gives good fabric properties for pre- or post-cure application.

PROTOREZ CAB:

Pre-catalyzed reactant for very low fabric formaldehyde release.

PROTOREZ ONE:

Alkoxy heterocyclic reactant--pre-catalyzed--provides excellent shade change protection; for pre- or post-cure operation.

**NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):**

Carbamates:

PROTOREZ ANV:

Low cost; modified carbamate that gives less than 500 ppm of fabric formaldehyde; excellent shrinkage control and wash/wear properties.

PROTOREZ AVG:

Carbamate reactant designed for excellent shrinkage control and wash/wear properties; pre-cure application only.

Catalysts:

CURITE MG:

All purpose catalyst; gives minimum shade change--magnesium chloride solution.

CURITE DU:

Broad range catalyst best suited for melamine and UF resins; also used with fluorochemical finishes--organic salt.

CURITE EV:

Non-chloride catalyst for use with fluorochemicals, melamines, and UF's--organic salt.

CURITE ZK:

Excellent catalyst for buffered glyoxal reactants--zinc nitrate solution.

CURITE 5161:

Medium active catalyst for glyoxal and carbamate reactants--modified magnesium chloride solution.

CURITE 5184:

Activated catalyst for use on goods to be over-printed or with water repellent finishes; for fast curing--modified magnesium chloride solution.

CURITE 5364:

Fast curing catalyst for use with finishing bath additives that are sensitive to low bath pH's--magnesium chloride complex.

CURITE 5361:

Work horse catalyst for all types of reactants or resins; fast curing--modified magnesium chloride solution.

CURSIL MD:

Organo metal complex catalyst for use with silicone water repellents, such as PROTOSIL GH.

NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):

Water Repellents:

Water Repellent WX:

Wax type water repellent for use on all fabrics; resin bath compatible.

PROTOSIL GH:

Silicone based water repellent, compatible or in resin baths; requires use of CURSIL MD as catalyst.

Antistats:

Antistat 895-B:

Excellent antistat for all fibers--can be applied by padding or exhaustion--cationic.

Antistat 2088:

Useable on all fibers and in resin baths; non-ionic.

PERMAFIN ZC:

Heat stable; durable to laundering; for all fibers; can be exhausted or padded--cationic.

ZERO C:

Resin stable antistat; useable on all fibers--mildly cationic.

ZERO ZQ:

Excellent antistat for all fibers--effective at low use concentrations--cationic.

ZERO 1669:

Antistat for all fibers, natural or synthetic--anionic.

Fire Retardants:

PROTOGARD 2B:

Non-durable cellulosic fire retardant--inorganic salts complex.

PROTOGARD 16:

Fire retardant for cellulosic fibers; non-durable--inorganic salt blend.

PROTOGARD NP-5:

Fire retardant that is durable on 100% nylon and polyester.

**NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):**

Weighters:

PROTOWATE 5244:

Useable in resin baths without affecting resin curing;
for all fibers--Humectant blend.

PROTOSORB W:

Gives excellent weight regain--Inorganic salt blend.

Hand Modifier:

PROTOBILD:

Gives fullness to fabrics; safe to use in water repellent
of fluorochemical finishes; durable to laundering when applied
with resins--starch derivative.

PROTOREZ M-50-LF:

For use where a full hand is desired; gives shrinkage control
on cellulosic fabrics--etherified UF resin.

Antistick Agents:

PROTOLUBE REL:

Blended emulsion to prevent sticking and pick off of heavy
mixes; resin bath stable--non-ionic.

SULPHONATED CASTOR OIL 75:

Excellent antistat agent for polyvinyl acetate and acrylic
emulsions; not resin bath stable--anionic.

PROTOLUBE PE:

Polyethylene emulsion used in pad baths containing softeners;
high solids of PVA/acrylic emulsion--non-ionic.

Nonionic Softeners:

PROTOLUBE 12B:

Work horse softener; non-yellowing; liquid; easily diluted
for use in resin baths; can be foamed--fatty ester.

PROTOLUBE 414:

Excellent all round napping lubricant for fabrics--anionic
ester blend.

NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):

Nonionic Softeners(Continued):

PROTOLUBE 1112:

High solids polyethylene emulsion; excellent needle lubricant; resin bath stable.

PROTOLUBE 3974:

Lubricant for fiberglass; prevents needle cutting; polypropylene emulsion; stable in resin baths.

PROTOLUBE DB:

Non-volatile softener; non-yellowing; gives soft slick hand; resin stable--fatty ester.

PROTOLUBE HD:

High density polyethylene emulsion; can be used in fire retardant finishes; resin bath stable; improves fabric properties.

PROTOLUBE MRS:

Liquid all purpose softener; gives soft slick hand--fatty ester.

PROTOLUBE PE:

Polyethylene emulsion that improves fabric properties in resin bath finishes.

PROTOLUBE SPC:

Softener that gives soft hand; non-yellowing; reduces needle cutting--fatty ester blend.

Cationic Softeners:

PERMAFIN (S):

Polyelectrolyte for use in resin baths or alone as a top finish to give a very soft hand; reduces needle cutting, durable to laundering; has antistat qualities; can be exhausted or padded.

PROTAMINE 45-20:

Low soiling; resin bath stable; cold water soluble; gives soft hand--fatty amide.

PROTAMINE 65-20:

Non-yellowing softener for synthetics--fatty amide.

PROTAMINE 3187-15%:

Liquid quat. softener designed for acrylic fibers, provides static protection.

**NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):**

Cationic Softeners(Continued):

PROTAMINE 4143:

Cationic polyethylene emulsion that gives softness and slickness to fabrics; reduces needle cutting; non-yellowing; resin bath stable.

PROTAMINE ABM:

Liquid, non-yellowing softener, does not contribute to shade change--fatty amide blend.

PROTAMINE MPK:

Resin bath stable softener that gives excellent softness to all fabrics; non-yellowing--imidazoline.

PROTAMINE JS:

Non-polyethylene containing softener that provides needle cutting protection; gives a very soft hand; resin bath stable; non-yellowing--mildly cationic.

PROTAMINE GW:

Excellent softener for toweling and other specialty fabrics. Provides good wicking and fast rewetting properties; non-yellowing--fatty amide blend.

PROTAMINE 1328:

Superior fabric softener that is non-yellowing; gives soft, almost silicone slick hand to fabrics; resin bath stable--polyelectrolyte.

SOFANOL L-100:

Softener for all fabrics; resin bath stable; non-yellowing fatty amide emulsion.

Sanforizing Assistants:

LUSAN SAT:

Excellent denim softener; gives soft, well-lubricated hand--has very good wetting and rewetting properties--anionic.

VELVATEX 75:

Sulfated tallow for non-resin finishes on cotton fabrics; gives good hand--anionic.

NATIONAL STARCH AND CHEMICAL CORP.: Finishing Chemicals
(Continued):

Sanforizing Assistants(Continued):

PROTOWET D-75:

Very fast wetting and rewetting agent--aids in pre-shrinkage process--anionic--ester sulfate.

PROTOWET 5316:

Excellent denim softener with built-in wetting and rewetting properties--anionic-sulfated esters.

Wetting Agents:

PROTOWET D-75:

Very fast anionic wetting and rewetting agent; foaming agent --sulfated ester.

PROTOWET TAF:

Fast wetter for finishing baths; excellent wetter for resin baths--nonionic.

PROTOWET E-4:

Very good non-rewetting wetting agent; for use with water repellent and fluorochemical finishes--nonionic.

PROTOWET XL:

Fast wetting and rewetting; useful in non-resin finishes as softener/wetting agent.

NATIONAL STARCH AND CHEMICAL CORP.: Polymers for Textiles:

Ethylene-Vinyl Acetate:

DUR-O-SET E-223:

% Solids: 52
pH: 5.5
Tg(C): 0
Ionic Nature: anionic
Suggested Uses: Mattress Ticking Coating
 High Pile Coating
 Textile Finishing
High tensile strength. Rapid curing.

DUR-O-SET E-224:

% Solids: 55
pH: 4.5
Tg(C): 0
Ionic Nature: anionic
Suggested Uses: Upholstery/Carpet Coatings
 High Pile Coating
Resists staining by acrylic dyes. Excellent for acrylic
upholstery fabric coatings.

DUR-O-SET E-246:

% Solids: 52
pH: 5.0
Tg(C): -12
Ionic Nature: anionic
Suggested Uses: High Pile Coating
 Textile Finishing
Fast curing, soft hand.

DUR-O-SET E-266:

% Solids: 60
pH: 4.5
Tg(C): -12
Ionic Nature: anionic
Suggested Uses: Mattress Ticking Coating
 Upholstery/Carpet Coatings
 High Pile Coating
 Textile Finishing
 Textile Adhesive/Laminating
Excellent for high pile coatings. Can be dielectrically
bonded. High filler acceptance.

DUR-O-SET E-269:

% Solids: 52
pH: 4.5
Tg(C): -20
Ionic Nature: anionic
Suggested Uses: Pigment Printing
 Textile Finishing
Good general purpose textile finishing hand builder.

NATIONAL STARCH AND CHEMICAL CORP.: Polymers for Textiles
(Continued):

Ethylene-Vinyl Acetate(Continued):

DUR-O-SET E-292:

% Solids: 50

pH: 5.5

Tg(C): -28

Ionic Nature: anionic

Suggested Uses: Upholstery/Carpet Coatings
Textile Finishing

EVA terpolymer. Very soft, flexible hand. Outstanding adhesion to synthetics.

DUR-O-SET E-200:

% Solids: 55

pH: 4.5

Tg(C): 0

Ionic Nature: nonionic

Suggested Uses: Upholstery/Carpet Coatings
Textile Adhesive/Laminating

Laminating polymer with high wet tack and excellent adhesion to most textile substrates.

Acrylic/Vinyl Acrylic:

DUR-O-CRYL 279:

% Solids: 45

pH: 3.5

Tg(C): +40

Ionic Nature: anionic

Suggested Uses: High Pile Coating
Textile Finishing

Very firm. Cross-linking vinyl acrylic copolymer emulsion.

DUR-O-CRYL 206:

% Solids: 45

pH: 3.5

Tg(C): +29

Ionic Nature: anionic

Suggested Uses: High Pile Coating
Textile Finishing

Self cross-linking vinyl acrylic copolymer. Firm hand.

DUR-O-CRYL 429:

% Solids: 50

pH: 4.5

Tg(C): +6

Ionic Nature: anionic

Suggested Uses: Mattress Ticking Coating
Upholstery/Carpet Coatings
High Pile Coating
Textile Finishing

Self cross-linking acrylic emulsion. Excellent product for compounded coatings.

NATIONAL STARCH AND CHEMICAL CORP.: Polymers for Textiles
(Continued):

Acrylic/Vinyl Acrylic(Continued):

DUR-O-CRYL 203:

% Solids: 45

pH: 4.5

Tg(C): -2

Ionic Nature: anionic

Suggested Uses: High Pile Coating

Textile Finishing

Self cross-linking vinyl acrylic copolymer. Medium hand.

DUR-O-CRYL 428:

% Solids: 51

pH: 2.5

Tg(C): -4

Ionic Nature: anionic

Suggested Uses: Pigment Printing

High solvent resistance. Resilient hand.

DUR-O-TRON 2876:

% Solids: 48

pH: 4.5

Tg(C): -9

Ionic Nature: anionic

Suggested Uses: Pigment Printing

High solids binder designed for pigment printing systems.

Excellent redispersibility.

DUR-O-CRYL 245:

% Solids: 45

pH: 6.5

Tg(C): -10

Ionic Nature: nonionic

Suggested Uses: Textile Adhesive/Laminating

Acrylic copolymer emulsion. Excellent pigment and clay binding properties.

DUR-O-CRYL 424:

% Solids: 53

pH: 4.5

Tg(C): -10

Ionic Nature: anionic

Suggested Uses: Drapery Coating

Upholstery/Carpet Coatings

High Pile Coating

Textile Finishing

Textile Adhesive/Laminating

Self-reactive acrylic polymer. Excellent compoundability.
Good solvent resistance.

NATIONAL STARCH AND CHEMICAL CORP.: Polymers for Textiles
(Continued):

Acrylic/Vinyl Acrylic(Continued):

DUR-O-CRYL 620 AN:

% Solids: 45

pH: 5.0

Tg (C): -13

Ionic Nature: anionic

Suggested Uses: Drapery Coating

Mattress Ticking Coating

Self cross-linking acrylic copolymer. Excellent durability.

Very tough polymer.

DUR-O-CRYL 204:

% Solids: 45

pH: 4.0

Tg(C): -20

Ionic Nature: anionic

Suggested Uses: High Pile Coating

Textile Finishing

Self cross-linking vinyl acrylic copolymer. Soft hand.

DUR-O-CRYL 207:

% Solids: 50

pH: 3.5

Tg(C): -33

Ionic Nature: anionic

Suggested Uses: Pigment Printing

Textile Finishing

Very soft cross-linking acrylic emulsion.

DUR-O-CRYL 484:

% Solids: 50

pH: 3.5

Tg(C): -37

Ionic Nature: anionic

Suggested Uses: Pigment Printing

Textile Finishing

Self cross-linking acrylic. Very soft hand. Superior abrasion resistance.

DUR-O-CRYL 265:

% Solids: 50

pH: 4.5

Tg(C): -40

Ionic Nature: anionic

Suggested Uses: Pigment Printing

Textile Finishing

Very soft hand. Self cross-linking acrylic. Excellent durability properties.

**NATIONAL STARCH AND CHEMICAL CORP.: Polymers for Textiles
(Continued):**

Vinyl Acetate:

DUR-O-SET 917:

% Solids: 45

pH: 4.0

Tg(C): +29

Ionic Nature: anionic

Suggested Uses: High Pile Coating
Textile Finishing

General purpose cross-linking polyvinyl acetate emulsion.
Durable to laundering.

DUR-O-SET H-100:

% Solids: 55

pH: 5.0

Tg(C): +32

Ionic Nature: nonionic

Suggested Uses: Textile Finishing
Textile Adhesive/Laminating

General purpose polyvinyl acetate hand builder. Non cross-linking. PVA protected.

DUR-O-SET SBX:

% Solids: 55

pH: 4.0

Tg(C): +28

Ionic Nature: nonionic

Suggested Uses: Textile Finishing

General purpose polyvinyl acetate hand builder. Water repellent compatible, non cross-linking, HEC protected.

DUR-O-COTE ABS-N:

% Solids: 50

pH: 4.0

Tg(C): +32

Ionic Nature: nonionic

Suggested Uses: Textile Finishing

Non cross-linking, surfactant protected, polyvinyl acetate emulsion.

NATIONAL STARCH AND CHEMICAL CORP.: Preparation Chemicals:**Scouring/Wetting Agents:****PROTOWET NBF:**

Efficient in removal and suspension of synthetic size.
Excellent emulsifier of waxes and oils--anionic.

PROTOWET 5501:

Low foam solvent scour for use in high speed desizing and scouring equipment.

PROTOWET 5EROH:

Wool scouring agent--anionic.

PROTOWET D-75:

Extremely fast wetting agent. Use in desizing or in the final preparation step to promote fast wetting--anionic.

PROTOWET E-4:

Non-rewetting scouring agent. Use to prepare goods prior to a water repellent finish--non-ionic.

PROTOWET 5218:

Scouring agent for use in caustic treatments with high levels of caustic soda. Caustic stability to 18%. Anionic/Non-ionic.

PROTOWET LB:

Excellent detergent for enzyme desizing with high speed equipment.

PROTOWET MB:

Efficient scouring agent with low foam and de-aerating properties. Advantageous on beck, jet and package dye equipment--anionic.

Chelating Agents:**POLYSENE 100:**

General purpose chelate for preparation and dyeing. Sodium salt of ethylene diamine tetra acetic acid (EDTA).

POLYSENE 80:

For use in peroxide bleaching. Sodium salt of diethylene triamine penta acetic acid (DTPA).

**NATIONAL STARCH AND CHEMICAL CORP.: Preparation Chemicals
(Continued):**

Chelating Agents(Continued):

POLYSENE 120:

Provides chelation over a wide pH range in bleaching or dyeing. Sodium salt of hydroxy ethyl ethylene diamine tri acetic acid (HEEDTA).

POLYSENE T:

Effectively removes iron in high caustic concentrations. Blend of chelates.

POLYSENE KB:

Removes iron, copper and other ions with no loss of enzyme efficiency. Blend of chelates.

Bleaching Assistants:

PROTOWET 5ERAS:

Provides removal of metallic ions and enhances fiber protection in caustic pre-treatments. Blend of chelates and reducing agents.

PROTOWET 5ESRS:

Provides removal of metallic ions, waxes, oils and enhances fiber protection in caustic pre-treatments. Blend of detergents, chelates, and reducing agents.

PROTOWET 5EMTB:

Peroxide bleach stabilizer. Non-foaming. Compatible with high caustic concentrations.

PROTOWET 5ESTA:

Peroxide bleach stabilizer containing surfactants. Anionic/non-ionic.

PROTOWET SSB:

Bleach stabilizer for continuous single stage bleaching--Anionic/non-ionic.

SULFONATED CASTOR OIL 75:

Lubricant for continuous bleaching in J boxes or conveyor steamer. Prevents rope marks in becks.

NYACOL PRODUCTS INC.: Colloidal Antimony Oxide: Flame Retardant Additives:

Nyacol Products Inc. manufactures colloidal antimony pentoxide and blends with halogen compounds for use as flame retardants. Antimony oxide reacts with halogen acids (HCl or HBr) to form volatile compounds that terminate combustion reactions and extinguish the flame. A variety of forms are available for many end uses.

Aqueous Dispersions:

Nyacol offers aqueous dispersions at three levels of oxide solids:

Grade: NYACOL A-1530

% Oxide: 30

Grade: NYACOL A-1550

% Oxide: 50

Grade: NYACOL A-1540N

% Oxide: 40 neutralized for easiest compounding

Halogen/Antimony Pentoxide Blends:

Grade: NYACOL N22

% Oxide: 15 (plus 32% bromine, 68% solids)

Grade: NYACOL N24

% Oxide: 11.2 (plus 33% halogen, 73% solids)

Grade: NYACOL N30

% Oxide: 16 (plus 39% bromine, 66% solids)

Grade: NYACOL N35

% Oxide: 14 (plus 27.2% halogen, 68.5% solids)

These materials are generally used as replacements for lower cost antimony trioxide in latex compounds used for textile fabrics, non-wovens, adhesives, and various other applications. Unlike antimony trioxide, Nyacol materials will not settle out, will not clog spray guns, will more easily impregnate fabrics and paper and will contribute no whitening effect. Handling of dusty powders is eliminated. In many instances the aqueous colloidal antimony pentoxide is about twice as effective as trioxide.

NYACOL N22, N24, N30, and N35 are total flame retardant packages for use with halogenated or non-halogenated latices to provide clear, soft finishes.

NYACOL PRODUCTS INC.: Colloidal Antimony Oxide: Flame Retardant Additives(Continued):

Non-Aqueous Dispersions:

Grade:

NYACOL APE1540:

% Oxide: 40%

Organic Base: Unsaturated Polyester

End Uses: Halogenated Polyester Laminates

NYACOL AB40:

% Oxide: 40%

Organic Base: Polyester polyol

End Uses: Rigid foams, RIM urethane coatings and elastomers

NYACOL APVC35:

% Oxide: 35%

Organic Base: Plasticizer (polyester & phthalate)

End Uses: Clear and mass tone colored vinyl

NYACOL AP50:

% Oxide: 50%

Organic Base: Non-reactive high M.W. tertiary amine

End Uses: Epoxy resins, ketone solutions

Halogen/Antimony Pentoxide Blends:

HA9:

% Oxide: 14%

Organic Base: 46% bromine

End Uses: Urethane coatings, vinyls, rigid foams, RIM, non-halogenated polyesters

HA15PE:

% Oxide: 14%

Organic Base: 19% chlorine

20% bromine

End Uses: Urethane coatings, vinyls, rigid foams, RIM, non-halogenated polyesters

NYACOL non-aqueous colloidal dispersions are generally used in the plastics, coating, and adhesives industries where one or more of the following criteria are important:

1. Liquid components preferred over powders.
2. Zero tint contribution results in:
 - a. Greater cost effectiveness than low tint antimony trioxide in mass tone colors
 - b. Translucency as may be required
3. Suspension stability in low viscosity systems is required

NYACOL PRODUCTS, INC.: Colloidal Antimony Oxide: Flame Retardant Additives(Continued):

NYACOL Colloidal Antimony Pentoxide:

Grade:

A1530:

% Oxide: 30

Base Liquid: Water

A1550:

% Oxide: 50

Base Liquid: Water

A1540N:

% Oxide: 40

Base Liquid: Water

N22:

% Oxide: 15 (plus 32% bromine)

Base Liquid: Water

N24:

% Oxide: 11.2 (plus 33% halogen)

Base Liquid: Water

N30:

% Oxide: 16 (plus 39% bromine)

Base Liquid: Water

N35:

% Oxide: 14 (plus 27.2% halogen)

Base Liquid: Water

End Uses: Textile coatings, spray bonded non-wovens, adhesives, fibers.

APE1540:

% Oxide: 40

Base Liquid: Unsaturated Polyester

End Uses: Polyester/fiberglass laminates

AB40:

% Oxide: 40

Base Liquid: Polyester polyol

End Uses: Urethane rigid foam, RIM, coatings, elastomers

APVC35:

% Oxide: 35

Base Liquid: Plasticizer

End Uses: Clear and dark colored vinyls

AP50:

% Oxide: 50

Base Liquid: Non-reactive high M.W. tertiary amine

End Uses: Epoxy resins ketone solutions

NYACOL PRODUCTS, INC.: Colloidal Antimony Oxide: Flame Retardant Additives(Continued):

Colloidal Silica:

NYACOL Grade:

215:

Particle size, millimicrons: 3-4
SiO₂, %: 15
Na₂O, %: .83
Specific Gravity: 1.10
pH: 11
Viscosity, cps: 5

830:

Particle size, millimicrons: 8
SiO₂, %: 30
Na₂O, %: .55
Specific Gravity: 1.22
pH: 10.5
Viscosity, cps: 8

1430:

Particle size, millimicrons: 14
SiO₂, %: 30
Na₂O, %: .40
Specific Gravity: 1.22
pH: 10.3
Viscosity, cps: 7

1440:

Particle size, millimicrons: 14
SiO₂, %: 40
Na₂O, %: .48
Specific Gravity: 1.30
pH: 10.4
Viscosity, cps: 16

2050:

Particle size, millimicrons: 20
SiO₂, %: 50
Na₂O, %: .47
Specific Gravity: 1.40
pH: 10
Viscosity, cps: 50

2040:

Particle size, millimicrons: 20
SiO₂, %: 40
Na₂O, %: .38
Specific Gravity: 1.29
pH: 10
Viscosity, cps: 13

NYACOL PRODUCTS, INC.: Colloidal Antimony Oxide: Flame Retardant
Additives(Continued):

NYACOL Colloidal Silicas:

NYACOL Grade:

5050:

Particle size, millimicrons: 50
SiO₂, %: 50
Na₂O, %: .15
Specific Gravity: 1.40
pH: 9.3
Viscosity, cps: 25

9950:

Particle size, millimicrons: 100
SiO₂, %: 50
Na₂O, %: .12
Specific Gravity: 1.40
pH: 9.0
Viscosity, cps: 18

2040NH4:

Particle size, milimicrons: 20
SiO₂, %: 40
Specific Gravity: 1.29
pH: 9
Viscosity, cps: 15

2034DI:

Particle size, millimicrons: 20
SiO₂, %: 34
Specific Gravity: 1.24
pH: 3.0
Viscosity, cps: 7

2046EC:

Particle size, millimicrons: 20
SiO₂, %: 46
Na₂O, %: .42
Specific Gravity: 1.37
pH: 10
Viscosity, cps: 50

PEARSALL PRODUCTS: Plasticizers and Flame Retardants:

FYARESTOR-100:

Flame Retardant/Plasticizer

FYARESTOR-100 is a highly effective, economical, halogenated organic ideally suited for use in plastic and other products requiring flame retardancy with optimum cost/performance advantages.

Advantages:

Flame Retardance-Highly effective organic flame retardant
-Synergistic with all inorganic flame retardants

Efficiency-Superior to chlorinated paraffins

Cost-Cost/performance advantage over chlorinated paraffins

Compatibility-Compatible in both water and solvent based systems

Typical Properties:

Appearance: Clear, light colored liquid

Chlorine, %: 40

Bromine, %: 20

Applications:

- * Upholstery
- * Fabrics
- * Carpet Backing
- * PVC
- * Intumescent Coatings

FYARESTOR 102:

Flame Retardant/Plasticizer

FYARESTOR 102 is a bromochlorinated paraffin that performs as an effective flame retardant plasticizer in coated fabrics formulations for synthetic and natural fiber blends. Similar to chlorinated paraffins, FYARESTOR 102 offers greater flame retardant performance due to its functional bromine levels, yet retains similar plasticizer performance due to its low viscosity.

FYARESTOR 102 is a 100% solids organic product and is not water soluble, but is easily emulsifiable for latex coating systems. Its effectiveness is further improved by use of antimony oxide, zinc borate, or phosphorus-bearing synergists.

Advantages:

Flame Retardants-Highly effective organic flame retardant
Synergistic with all inorganic flame retardants

Efficiency-Superior to chlorinated paraffins on synthetic fibers

Typical Properties:

Appearance: Clear, light colored liquid

Chlorine, %: 31

Bromine, %: 22

Applications:

- * Upholstery
- * Fabrics
- * Carpet Backing
- * PVC

PEARSALL PRODUCTS: Plasticizers and Flame Retardants(Continued):**FYARESTOR 205:****Principal Use:**

FYARESTOR 205 is a new liquid flame retardant which contains high levels of stable bromine. FYARESTOR 205 is effective when used with a synergist such as phosphorus, antimony oxide, or zinc borate in applications where a stable flame retardant with low volatility is required:

- * Latex backings and coatings for carpeting, wall coverings, or upholstery.
- * Epoxy circuit boards and encapsulation.
- * Thermosetting wire and cable insulation.
- * Three-part urethane elastomers and coatings.

Benefits:

- * Good physical properties, including low viscosity provides superior handling in liquid polymer system.
- * Resistant to water extraction and humidity.
- * Can be emulsified for water systems.
- * Non-corrosive.
- * Low volatility.

Properties:

Viscosity, Poises @ 25C: 30
Bromine, Wt. %: 45
Chlorine, Wt. %: 15

FYARESTOR-330:

FYARESTOR-330 is a highly effective, economical, water-based flame retardant designed for products made from polyester and other fibers.

Applications:

- * Latex bonded non-woven polyester
- * Batting
- * Air Filters
- * Carpet underlayment
- * Insulation
- * Textile backing
- * Roof coatings
- * Bedding

Advantages:**Flame Retardance**

- * Highly effective flame retardant for bonded polyester fiber and reclaimed fiber blends.
- * Fully effective without other flame retardants.
- * Imparts desired flame resistance at minimum additive level.

Efficiency:

- * More cost/performance effective than halogen/antimony oxide or other halogen/phosphorus systems

Typical Properties:

Appearance: Water White Liquid
Bromine, Weight %: 55
Phosphorus, Weight %: 8

PEARSALL PRODUCTS: Plasticizers and Flame Retardants(Continued):

FYARESTOR 330B:

FYARESTOR 330B is a highly effective, economical, water-based flame retardant designed for products made from polyester and other fibers.

Applications:

- * Latex bonded non-woven polyester
- * Batting
- * Air Filters
- * Carpet underlayment
- * Insulations
- * Textile backing
- * Roof coatings
- * Bedding

Advantages:

Flame Retardance:

- * Highly effective flame retardant for bonded polyester fiber and reclaimed fiber blends.
- * Fully effective without other flame retardants.
- * Imparts desired flame resistance at minimum additive level.

Finished Product Color:

- * Gives improved performance in finished product color

Consistency:

- * Will not have solids dropout during storage.

Efficiency:

- * More cost/performance effective than halogen/antimony oxide or other halogen/phosphorus systems

Convenience:

- * Easily handled liquid
- * Compatible in PVA, PVA-Acrylic, Acrylic and SBR resin systems
- * May impart slight hardness to final product

Typical Properties:

Appearance: Water White Liquid

Bromine, Weight %: 55

Phosphorus, Weight %: 8

FYARESTOR 345:

FYARESTOR 345 is a highly effective, economical, water-based flame retardant designed for non-woven products made from polyester, cellulose and other fibers.

Applications:

- * Latex bonded non-woven polyester
- * Air filters
- * Textile backing
- * Draperies
- * Camping and outdoor equipments

Advantages:

Flame Retardance

Efficiency

Convenience

Typical Properties:

Appearance: Water White Liquid

Solids, Weight %: 33

PEARSALL PRODUCTS: Plasticizers and Flame Retardants(Continued):**FYARESTOR 350:**

FYARESTOR 350 is a highly effective, economical, water-based flame retardant designed for paper and non-woven products made from polyester, cellulose and other fibers.

Applications:

- * Latex bonded non-woven polyester
- * Air filters
- * Textile backing
- * Draperies
- * Paper and cellulosic products
- * Camping and outdoor equipments

Advantages:**Flame Retardance:**

Highly effective flame retardant for polyester and other non-woven products as well as paper and cellulosic products. Has good temperature stability to resist yellowing or browning of the coated substrate. Does not require synergist for its flame retardant action.

Efficiency:

Most cost/performance effective than halogen/antimony oxide or other halogen/phosphorus systems.

Convenience:

Easily handled liquid without elaborate protective equipment
Compatible with many latex systems.

Typical Properties:

Appearance: Water White Liquid
Solids, Weight %: 34

ID 59-5C:

ID 59-5C is a developmental bromochloro-hydrocarbon which exhibits very good thermal stability and ultra violet (UV) properties.

Properties:

Appearance: Clear, light colored liquid
Chlorine, %: 32
Bromine, %: 30.5

ID 65-37B:

ID 65-37B is a bromochlorinated paraffin that performs as an effective flame retardant plasticizer in coated fabrics formulations. ID 65-37B is a 100% organic product and is not water soluble, but is easily emulsifiable for latex coating systems. This developmental product exhibits excellent thermal and UV stability.

Typical Properties:

Appearance: Clear, light colored liquid
Chlorine, %: 29+-1
Bromine, %: 27+-1

PETROLEUM SPECIALTIES INTERNATIONAL, INC.: BRITOL Technical White Mineral Oils:

Features:

- | | |
|-------------------|-----------------------------|
| * Low volatility | * Excellent color stability |
| * Low pour points | * Economical |

Applications:

BRITOL technical white mineral oils have a broad variety of applications where a USP grade white mineral oils is not necessary. These include:

- | | |
|---|---------------------|
| * Adhesives | * Animal Feed |
| * Food machinery | * Meat packers |
| * Metallic foil | * Paper manufacture |
| * Textiles: fiber lubricants, knitting aids and surface finishes for synthetic fibers | |

BRITOL 6T:

Viscosity SUS @ 100F (38C): 60
Specific Gravity 25/25C: 0.849

BRITOL 7T:

Viscosity SUS @ 100F (38C): 70
Specific Gravity 25/25C: 0.849

BRITOL 9T:

Viscosity SUS @ 100F (38C): 85
Specific Gravity 25/25C: 0.852

BRITOL 18T:

Viscosity SUS @ 100F (38C): 178
Specific Gravity 25/25C: 0.858

BRITOL 35T:

Viscosity SUS @ 100F (38C): 355
Specific Gravity 25/25C: 0.861

BRITOL 50T:

Viscosity SUS @ 100F (38C): 515
Specific Gravity 25/25C: 0.868

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals:**FIXING AGENT XP 10:**

FIXING AGENT XP 10 is an aftertreating agent for acid dyes, used in order to improve the fastness to washing, perspiration, tap water and sea water bleeding, and crocking. It is used alone without any other chemicals with good results, but for the best fastness on shades with the most rigorous requirements a combination of tannic acid and FIXING AGENT XP 10 can be of value.

Typical Properties:

Appearance: Clear dark green or brown liquid
Solubility: Clear in water
pH, 1% solution: 1.5+-0.25
Ionic nature: Anionic
Odor: Mild, acidic
Viscosity: 60 cps
Specific gravity: 1.110-1.150

NAPLUBE 35:

NAPLUBE 35 is a blend of lubricants, softening agents and antistats that contribute to excellent finished goods after the napping process. This blend gives desirable results due to its ability to impart the correct fiber to metal and fiber to fiber lubricity to the goods. Also its antistatic properties provide for improved processing and add appeal to finished goods.

NAPLUBE 35 may be applied in a pad solution from conventional equipment.

Typical Properties:

Appearance: Opaque white liquid
Solubility: Disperses in water
pH, 1% solution: 4.5-5.5
Ionic nature: Cationic
Specific Gravity: .985-1.035
Viscosity: 20-40 cps

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):

POMOCO DB:

POMOCO DB is a non-permanent flame retardant product for cellulosic and blended materials, usually applied by padding onto knit or woven goods. It is a white powder, easily dissolved in warm (120-130F.) water to form a clear, colorless solution; the strength of the padding solution can range from 3 to 15%, depending on the degree of flame retardancy desired, the construction of the fabric, and the percent pickup at the pad. No special curing is required; a thorough drying is sufficient to develop the full potential.

POMOCO DB is not to be considered as "flame-proofing" nor "durable", but it has been found to enable fabrics such as rayon and cotton drapery materials to pass the 6-inch burning tests before and after 5 dry-cleanings.

Typical Properties:

Appearance: Opaque white granular powder

Solubility: Soluble

pH, 1% solution: 8.6

Ionic nature: Nonionic

Odor: None, but smells of ammonia when dissolved in water.

Specific gravity: 1.3G/ml

POMOCO SR 92:

POMOCO SR 92 is a very versatile product, used on polyester and polyester/cellulosic blends as a dyebath detergent, a dyebath lubricant, and as a finishing agent.

In atmospheric and high temperature dyebaths, 1 to 2% POMOCO SR 92 will absorb and hold any oils that may have been carried over from a prescour. However, in many cases the addition of 2 to 4% POMOCO SR 92 to the dyebath can eliminate the necessity for a prescour, since it is so very effective in removing oil and holding it so it will not interfere with dyeing.

POMOCO SR 92 also acts as a very good fabric lubricant in the dyebath, helping to eliminate crack marks, creases, and chafing on conventional and jet machines.

As a finishing agent, POMOCO SR 92 can be used as an extender for some types of fluorocarbon soil and stain release finishes. Partial replacement of most fluorocarbons will give equally good results, and in some cases it will actually improve the performance of the fluorocarbon.

Typical Properties:

Appearance: Opaque off-white liquid

Solubility: Disperses in water

pH, 1% solution: 6.5-7.5

Ionic nature: Nonionic

Odor: Mild

Viscosity: 35-55 cps

Specific gravity: 0.98-1.02

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):**POMOCO SRA 30:**

POMOCO SRA 30 is a very versatile product, used on polyester and polyester/cellulosic blends as a dyebath detergent, a dyebath lubricant, and as a finishing agent.

POMOCO SRA 30 also acts as a very good fabric lubricant in the dyebath, helping to eliminate crack marks, creases, and chafing on conventional and jet machines.

As a finishing agent, POMOCO SRA 30 can be used as an extender for some types of fluorocarbon soil and stain release finishes. Partial replacement of most fluorocarbons will give equally good results, and in some cases it will actually improve the performance of the fluorocarbon.

Typical Properties:

Appearance: Opaque off-white liquid

Solubility: Disperses

pH, 1% solution: 6.0-7.0

Ionic nature: Nonionic

Odor: Pleasant

Viscosity: 100-300 cps

Specific gravity: 0.98-1.02

POMOFIX VK 75:

POMOFIX VK 75 is a non-formaldehyde containing resinous aftertreating agent used to improve wet fastness of direct, develop, and fiber reactive dyes on cotton and rayon. POMOFIX VK 75 also improves dye fastness to cold water bleeding, perspiration, migration, and wet ironing.

POMOFIX VK 75 may be applied after rinsing dyed goods at a 1 to 4% level at a temperature of 120-140F. for 20 minutes. After treating goods, drop bath and rinse one or more times, then soften if desired. POMOFIX VK 75 is also suitable for application by padding at a 1 to 4% level.

Removal of POMOFIX VK 75 for redyeing may be accomplished by:

1. 1-1/2% Caustic soda flake at 190F. for 1/2 hour,
2. Caustic and hydro strip,
3. 15-20% Common salt at a boil for 20-30 minutes.

Follow treatment with sufficient rinsing to bring bath back to neutral, free of caustic or salt, before starting redyeing process.

Typical Properties:

Appearance: Straw-colored liquid

Solubility: Clear in water

pH, 5%: 4.5-5.5

Odor: Sl. acetic

Specific gravity: 1.075-1.125

Ionic nature: Cationic

Viscosity: 25 cps

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):

POMOFIX G48:

POMOFIX G48 is a resinous aftertreating agent used to improve the wet fastness of direct, develop, and fiber reactive dyes on cotton and rayon. In addition to improving the washfastness, POMOFIX G48 also improves the fastness to cold water bleeding, perspiration, migration, and wet ironing.

One of the features of POMOFIX G48 is its high tolerance to common salt or Glauber's salt, phosphates, etc. Most fixing agents have a low tolerance to these conditions, whereas POMOFIX G 48 will perform well under the same conditions.

The normal procedure is to give a cold water rinse or a salt rinse after dyeing, then refill cold and add 1 to 3% POMOFIX G 48, heat to 120F., and run 20 minutes. After this, the bath is dropped and one or more rinses given before softening.

Typical Properties:

Appearance: Clear light straw colored liquid
Solubility: Soluble
pH, 1% solution: 4.3
Ionic nature: Cationic
Odor: Mild
Viscosity: 27 cps
Specific Gravity: 1.180-1.230

POMOLUBE 243:

POMOLUBE 243 is a cationic/nonionic blended softener designed to give a good soft hand to natural and synthetic fibers, with excellent lubrication for sewing purposes. It can be used on woven or knit goods, and in addition to hand and sewability, it imparts excellent napping properties, whether applied in the last rinse of a batch process or padded on in a continuous process. It is compatible with durable press and wash/wear resins, and can be included as part of the resin pad bath.

Typical Properties:

Appearance: Opaque off-white liquid
Solubility: Disperses in water
pH, 1%: 5.5
Ionic nature: Cationic/nonionic
Odor: Mild
Viscosity: 62 cps
Specific Gravity: .975-1.025

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):**POMOLUBE 802:**

POMOLUBE 802 is an aqueous emulsion of an extremely high density polyethylene, designed for textile finishing as a part of a dimensional control resin mix or as a top finish alone. In both applications, POMOLUBE 802 gives a very smooth soft hand, with excellent lubrication and sewing properties. It is essentially nonionic, with a small amount of anionic material, and is compatible with most of the normal finishing materials.

Typical Properties:

Appearance: Opaque off-white liquid
Solubility: Disperses
pH, 1% solution: 8.5-9.0
Ionic nature: Nonionic
Odor: Mild, pleasant
Viscosity: 20-25 cps
Specific Gravity: .975-1.025

POMOLUBE HPO:

POMOLUBE HPO is a lubricant and softener that features outstanding fiber lubrication, sewability of knit or woven goods, and excellent napping qualities, all on natural and synthetic fibers.

It can be applied from a pad in continuous processing or in the last rinse of batch processing. POMOLUBE HPO is compatible with most dimensional control resin softeners and will smooth out the raspy hand that many of these give to the fabrics. In batch processing of knit and woven goods, the application of POMOLUBE HPO in the last rinse greatly facilitates sewing and napping, and on raw stock it improves carding and spinning properties.

Typical Properties:

Appearance: Off-white opaque liquid
Solubility: Soluble
pH, as is: 4.0-5.0
Ionic nature: Cationic
Odor: Mild
Viscosity: 25-50 cps
Specific gravity: .990-1.010

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):

POMOLUBE PE 65:

This is a concentrated nonionic emulsion of a medium density polyethylene, which can be used as is or diluted with water to any desired level of activity.

It is applied to yarn and fabrics to give excellent lubrication and hand modification, either by itself as a top finish or in conjunction with dimensional control and wash/wear resins; it disperses very readily into water and is compatible with all the normal resins, softeners, catalysts, etc., used in fabric finishing. Two of its outstanding features are sewing lubrication and tensile and tear strength improvement, especially where heavy goods are being sewn at high speed.

Typical Properties:

Appearance: Semitranslucent tan/yellow liquid
Solubility: Disperses
pH, 1% solution: 8.5-9.5
Ionic nature: Nonionic
Odor: Mild
Viscosity: 45-60 cps
Specific gravity: .968 -1.018

POMOLUBE LE 45:

POMOLUBE LE 45 is a nonionic emulsion of a non-reactive silicone for use as a softener and lubricant alone or in resin mixes for a smooth slick hand. Use of POMOLUBE LE 45 will dramatically improve both crock resistance and needle cutting characteristics.

Typical Properties:

Appearance: Opaque white liquid
Solubility: Disperses
pH, 100%: 4.0-6.0
Ionic nature: Nonionic
Odor: Mild
Viscosity: 30 cps
Specific gravity: .975-1.025

POMOLUBE LFB:

POMOLUBE LFB is a softener for knit and woven fabrics that gives an excellent hand and improved properties for subsequent processing. It gives outstanding softness and excellent napping, cutting and sewing lubrication, with good thermal stability which helps keep equipment clean and running properly. It has excellent white retention and resistance to shade change during drying and in storage.

Typical Properties:

Appearance: Opaque white liquid
Solubility: Disperses
pH, 1% solution: 5.5+-0.5
Ionic nature: Cationic
Odor: Mild, fatty
Viscosity: 200 cps
Specific gravity: .975-1.025

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):**POMOLUBE RES:**

POMOLUBE RES is a silicone based softener which can be used as a top finish or as a component of a dimensional control resin system. When used as a top finish, the addition of a small amount of catalyst (POMOCURE DRZ) will greatly increase the durability of the softness; when used with a resin, the catalyst used for the resin will also act as a catalyst for POMOLUBE RES and increase the durability in the same manner.

In either system POMOLUBE RES gives excellent softness to cotton and blends, with increased wrinkle recovery and abrasion resistance. Usage level of POMOLUBE RES is approximately 3% ows, and curing should be at 160C. for 2-5 minutes, or whatever conditions are dictated by the dimensional control resin.

Typical Properties:

Appearance: Opaque white liquid
Solubility: Disperses
pH, 1% solution: 6.5-7.0
Ionic nature: Nonionic
Odor: Mild
Viscosity: 17-20 cps
Specific gravity: .975-1.025

POMOSOFT 479 Base:

POMOSOFT 479 Base is a mildly cationic softener made in a high concentration solid form and designed for use on cotton, nylon, polyester/cotton, and other blended fibers to give a full, smooth hand. It has excellent white retention and resistance to shade change during processing or during storage of the yarn or fabric to which it is applied.

POMOSOFT 479 Base is normally reduced to a 10-20% dispersion in hot water before being used in the dyehouse. In its diluted form, POMOSOFT 479 Base can be applied by exhaustion in the last rinse of a dye cycle, or it can be padded on in a continuous processing range.

Typical Properties:

Appearance: Opaque tan solid
Solubility: Dispersible (Hot)
pH, 1% solution: 4.0-5.0
Ionic nature: Sl. Cationic
Odor: None
Viscosity: Solid
Specific Gravity: .90-.93 (75C)

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):

POMOSOFT 54 Base:

POMOSOFT 54 Base is a highly concentrated cationic softener, designed primarily for use on acrylic yarn or fabric. It is a semi-soft waxy solid, and needs to be diluted before adding to the dye machine or pad bath.

The normal procedure is to melt one part of POMOSOFT 54 Base in 9 parts of water, to make a 10% solution. It should be heated to at least 185F with stirring and all particles thoroughly dispersed before starting the cooling process. Stirring should be continued while cooling, until the solution reaches a temperature below 120F. in order to insure a homogeneous product that is thin and easily pourable.

Typical Properties:

Appearance: Tan waxy solid
Solubility: Disperses in water (180-190F.)
pH, 1% solution: 4.0-5.0
Ionic nature: Cationic
Odor: Mild
Specific gravity: 0.90+-0.05

SYNTHASIL SME:

SYNTHASIL SME is a modified organo-silicone type softening agent in a stable micro-emulsion form. SYNTHASIL SME gives a very soft hand to a wide variety of fabric constructions and fiber types. In addition to a soft hand, it gives a "bouncy" feel to knit goods.

SYNTHASIL SME can be applied from the pad bath in amounts of 1/2 to 2% owf or it can be exhausted onto the fabric in amounts up to 3% owf.

Typical Properties:

Appearance: Translucent liquid
Solubility: Disperses in water
pH, as is: 5.0-6.0
Ionic nature: Cationic
Odor: Mild
Viscosity: 50 cps
Specific gravity: 0.970-1.020

PIEDMONT CHEMICAL INDUSTRIES: Textile Chemicals(Continued):**SYNTHASIL SE 100:**

SYNTHASIL SE 100 is a nonionic, elastomeric silicone emulsion for treatment of a broad spectrum of natural, synthetic and blended woven or knit goods. The nonionic nature of the product allows for its use with a wide range of nonionic, cationic, anionic and amphoteric surfactants, softeners and lubricants.

This unique elastomer imparts numerous desirable properties to textiles:

- 1) Imparts an ultra soft hand.
- 2) Promotes fabric springiness.
- 3) Gives outstanding sewability.
- 4) Yields good wash-wear properties.
- 5) Adds wrinkle resistance and shape recovery.

SYNTHASIL SE 100 is ready for application straight from the drum, requiring no preblending with catalyst or cross linker. It can be padded or sprayed, either resulting in an even, level application.

Typical Properties:

Appearance: Opaque off white liquid
Solubility: Disperse in water
pH, 100%: 4+-0.5
Ionic nature: Nonionic
Odor: Pleasant
Viscosity: 45-100 cps
Specific gravity: 0.950-1.000

PPG INDUSTRIES, INC.: Caustic Soda:

Liquid Caustic Soda:

PPG produces liquid caustic soda (sodium hydroxide) as 50% and 73% solutions in water.

General Application:

- Chemicals
- Pulp and Paper
- Rayon and Cellophane
- Alumina Extraction
- Soapmaking
- Textiles: Used in scouring, bleaching, desizing, lustering and mercerizing.
- Petroleum Production and Refining
- Soda Ash Replacement

Grades and Forms:

Liquid caustic soda, 50% and 73% solutions, is available in the following regular grades: standard, low-iron, rayon and mercury-cell. The rayon and mercury-cell grades contain lower percentages of sodium chloride than do the standard and low-iron grades.

PELS Caustic Soda:

PELS caustic soda is a convenient form of dry caustic soda. The tiny beads, close to 3/4 millimeter in diameter, offer superior properties: little or no dust, excellent flow properties, uniform size, excellent blending characteristics, structural strength, high bulk density and low moisture pickup, resulting in less caking or lumping.

Uses:

- In detergent and cleaners
- In manufacturing other chemicals
- In petroleum exploration
- In water treatment
- In boiler compounds
- In paint- and varnish-removers
- In food processing plants and dairies
- In metal plants
- In tanneries
- In textile plants as an aid in scouring, bleaching and neutralizing.
- In drum-reconditioning operations
- In a variety of plants

Typical Properties:

- Molecular Weight: 40.005
- Melting Range, C: 310 to 320
- 590 to 608
- Heat of Solution: Exothermic

QO CHEMICALS, INC.: QO Tetrahydrofurfuryl Alcohol/THFA:

An Environmentally Acceptable, Biodegradable, Water Miscible Solvent

QO Tetrahydrofurfuryl Alcohol is a colorless, high boiling, primary alcohol containing a heterocyclic ring. It is manufactured by hydrogenation of furfuryl alcohol and is marketed under the trademark THFA.

Reactivity:

Tetrahydrofurfuryl Alcohol normally undergoes the usual reactions associated with primary alcohols. It also can be subjected to ring-opening reactions with or without subsequent recyclization.

Solvent Properties:

Due to its cyclic ether structure, Tetrahydrofurfuryl Alcohol has some distinctly unique solvent properties. It is considered a moderately hydrogen-bonded solvent comparable to the glycol ethers.

Uses:

- * EPA approved solvent for crop sprays.
- * Industrial and consumer cleaners.
- * Stripping formulations.
- * Leather/textile dyeing and finishing.
- * Plasticizer and vinyl stabilizer carrier.
- * Vinyl copolymer solvent.
- * Coating, ink, paint, and adhesive ingredient.
- * Reactive diluent and viscosity depressant in epoxy formulations.
- * Insect repellents.
- * Extraction solvent.
- * Specialty organic solvent.
- * Chemical intermediate.

General Properties:

Molecular weight: 102.13
Boiling point (760 mm) C.: 178
Freezing Point, C: below -80
Refractive index (n_t/D):
 at 20C.: 1.4520
 at 25C.: 1.4499
Specific gravity:
 at 20/20C.: 1.0543
 at 24/24C.: 1.0511
 at 31/31C.: 1.0450

Thermodynamic Properties:

Heat capacity, cal/g., C:
 20-27C.: 0.424
 30-37C.: 0.432
 40-47C.: 0.445

ROHM AND HAAS CO.: ACRYSOL Thickeners and Rheology Modifiers:

Acrylic Emulsion Copolymers--Alkali-Soluble or Swellable Emulsions:

All of the following are recommended for thickening synthetic latices, particularly RHOPLEX acrylic emulsions for standard backcoating, flocking, and laminating applications. They can be incorporated directly into the binder system; thickening begins with the addition of base to the proper pH.

ACRYSOL ASE-60:

% Solids: 28
Ionic Nature: Anionic
Lbs/US gal: 8.8
pH as packed: 3.0
Brookfield Viscosity, cP: 4
Imparts a short, buttery rheology. Crosslinked and swellable.

ACRYSOL ASE-75:

% Solids: 40
Ionic Nature: Anionic
Lbs/US gal: 9.0
pH as packed: 2.7
Brookfield Viscosity, cP: 20
Imparts a light, creamy rheology. Alkali soluble and not crosslinked.

ACRYSOL ASE-95:

% Solids: 18
Ionic Nature: Anionic
Lbs/US gal: 8.8
pH as packed: 3.0
Brookfield Viscosity, cP: 50
Imparts a long, leggy rheology. Alkali soluble and not crosslinked.

Alkaline Solution--Neutralized Polyacrylate Polymer:

ACRYSOL G-110:

% Solids: 22
Ionic Nature: Anionic
Lbs/US gal: 8.8
pH as packed: 9.3
Brookfield Viscosity, cP: 65 to 170
An ammonium polyacrylate solution recommended for thickening synthetic and natural latices. Can be used as supplied to produce thickened latices of a smooth consistent texture. Not sensitive to sodium, calcium, and magnesium ions. Also recommended as a pigment antimigrant.

**ROHM AND HAAS CO.: ACRYSOL Thickeners and Rheology Modifiers
(Continued):**

Associative Thickeners:

Anionic:

ACRYSOL RM-5:

% Solids: 30
Ionic Nature: Anionic
Lbs/US gal: 8.8
pH as packed: 3.3
Brookfield Viscosity, cP: 5 to 100

Alkali-soluble emulsion that improves the high-shear viscosity of a formulation. Recommended in conjunction with the ACRYSOL ASE thickeners to maintain viscosity at high shear rates. Not recommended as a primary thickener in most applications.

ACRYSOL TT-615:

% Solids: 30
Ionic Nature: Anionic
Lbs/US gal: 8.8
pH as packed: 3.0
Brookfield Viscosity, cP: <110

Acrylic emulsion copolymer that provides superior thickening in formulations with high electrolyte content. Ideally suited for low solids formulations used in textile printing or highly filled formulations. Also recommended for standard backcoating, flocking, and laminating applications. Imparts a gel-like rheology.

ACRYSOL TT-935:

% Solids: 30
Ionic Nature: Anionic
Lbs/US gal: 9.0
pH as packed: 2.8
Brookfield Viscosity, cP: 30

Acrylic emulsion copolymer with same advantages and applications as ACRYSOL TT-615 but not as efficient at low shear rates. Is less shear thinning and imparts a leggier rheology.

ROHM AND HAAS CO.: ACRYSOL Thickeners and Rheology Modifiers
(Continued):

Associative Thickeners(Continued):

Nonionic:

RHEOLOGY MODIFIER QR-708:

% Solids: 35 in propylene glycol/water, 60/40
Ionic Nature: Nonionic
Lbs/gal: 9.0
Brookfield Viscosity, cP: 20,000-35,000
Efficient thickener that imparts more Newtonian rheology.
Provides excellent holdout when coating fabric such as
rainwear.

ACRYSOL RM-825:

% Solids: 25 in butyl CARBITOL/water, 25/75
Ionic Nature: Nonionic
Lbs/gal: 8.7
Brookfield Viscosity, cP: 1,000 to 2,500
Same advantages and applications as RHEOLOGY MODIFIER QR-708
but supplied at a lower viscosity for easier handling and
formulating.

ACRYSOL TT-678:

% Solids: 60 in methanol/water, 50/50
Ionic Nature: Nonionic
Lbs/gal: 8.6
pH as packed: 7.2
Brookfield Viscosity, cP: 325
Promotes sharp, clear outlines when used as an auxiliary
thickener in pigment printing. Helps prevent haloing or
migration on prefinished or synthetic blend fabrics. Dries
to a soft film, thus maintaining or even softening the hand
of the fabric.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions:

RHOPLEX acrylic emulsions have established themselves in the textile industry because of their wide variety of uses and versatility. These latices can be classified into different chemical types: (a) noncrosslinking (used alone), (b) thermosetting (heat-cured), (c) crosslinkable (catalyst or co-reagent needed), (d) self-crosslinking (needs no external catalyst or co-reagent), and (e) low-energy curing (cures at room temperature). Characterized by their ease of handling, formulation, and cleanup, these water-based, low-viscosity products vary in the hardness and strength of the films they form. They have excellent adhesion to many substrates and are resistant to discoloration from heat and light. Individual grades have specific properties that qualify them for a particular application, whether it be adhesives for flocking and laminating, spray bonding fiberfill, fabric finishing and backcoating, or pigment printing and dyeing.

Grade:**Noncrosslinking:****RHOPLEX B-85:**

Percent Solids: 38

Minimum Film Formation Temperature C: >90

Ionic Charge: Anionic

pH as packed: 9.8

Density lbs/US gal: 8.7

Brookfield Viscosity, cP: 100

Performance Properties:

Hand: Firm

Durability to Washing: Fair

Durability to Drycleaning: Fair

Does not form a film at room temperature. Particularly suited as a fabric delusterant.

Thermosetting:**RHOPLEX AC-604:**

Percent Solids: 46

Minimum Film Formation Temperature C: +35

Ionic Charge: Nonionic

pH as packed: 10.0

Density lbs/US gal: 9.0

Brookfield Viscosity, cP: 100

Performance Properties:

Hand: Full

Durability to Washing: Excellent

Durability to Drycleaning: Excellent

Fabric finishing. Saturating papermaking felts.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Cross-linkable:

RHOPLEX TR-77:

Percent Solids: 50

Minimum Film Formation Temperature C: <0

Ionic Charge: Anionic

pH as packed: 3.4

Density lbs/US gal: 8.8

Brookfield Viscosity, cP: 145

Performance Properties:

Hand: Soft

Durability to Washing: Good

Durability to Drycleaning: Good

Soft, nonblocking coating for durable crushed foam backcoatings for drapery fabrics. Good low temperature flexibility without plasticizers.

RHOPLEX B-15:

Percent Solids: 46

Minimum Film Formation Temperature C: <0

Ionic Charge: Nonionic

pH as Packed: 6.4

Density lbs/US gal: 8.8

Brookfield Viscosity, cP: 50

Performance Properties:

Hand: Soft

Durability to Washing: Good

Durability to Drycleaning: Good

Self-thickening emulsion that forms a soft, tacky film. Recommended for fabric backing and finishing; can be cross-linked with a thermosetting resin.

Self-Crosslinking:

RHOPLEX K-3:

Percent Solids: 46

Minimum Film Formation Temperature C: <0

Ionic Charge: Nonionic

pH as packed: 3.0

Density lbs/US gal: 8.7

Brookfield Viscosity, cP: 50

Performance Properties:

Hand: Very soft

Durability to Washing: Excellent

Durability to Drycleaning: Fair

Forms very soft films. Recommended for fabric finishing, especially to improve the abrasion resistance of durable-press fabrics and for pigment dyeing.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Self-Crosslinking(Continued):

RHOPLEX TR-934:

Percent Solids: 44.5

Minimum Film Formation Temperature C: <0

Ionic Charge: Anionic

pH as packed: 8.5

Density lbs/US gal: 8.7

Brookfield Viscosity, cP: 50

Performance Properties:

Hand: Very soft

Durability to Washing: Excellent

Durability to Drycleaning: Good

Forms a soft film with excellent low-temperature flexibility.
Recommended as a flocking adhesive. Excellent resilience with
good solvent resistance.

RHOPLEX HA-8:

Percent Solids: 45.5

Minimum Film Formation Temperature C: <0

Ionic Charge: Nonionic

pH as packed: 3.0

Density lbs/US gal: 8.7

Brookfield Viscosity, cP: 550

Performance Properties:

Hand: Soft

Durability to Washing: Excellent

Durability to Drycleaning: Good

Versatile emulsion with intermediate film properties and
excellent durability to washing and good durability to dry-
cleaning. Recommended for fabric finishing and backcoating;
adhesive for laminating and flocking.

RHOPLEX NW-1345:

Percent Solids: 45.5

Minimum Film Formation Temperature C: <0

Ionic Charge: Anionic

pH as packed: 3.0

Density lbs/US gal: 8.8

Brookfield Viscosity, cP: 100

Performance Properties:

Hand: Soft

Durability to Washing: Excellent

Durability to Drycleaning: Good to excellent

Versatile emulsion with soft film properties and durability
to washing and drycleaning. Good for polyester fabric finishing.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Self-crosslinking(Continued):

RHOPLEX TR-520:

Percent Solids: 50.5
Minimum Film Formation Temperature C: +5
Ionic Charge: Anionic
pH as packed: 3.0
Density lbs/US gal: 8.9
Brookfield Viscosity, cP: 100
Performance Properties:
 Hand: Intermediate
 Durability to Washing: Excellent
 Durability to Drycleaning: Good
Forms soft films. Can be loaded with high concentrations of salts for low-flame response. Recommended for fabric backcoating and as an anticrock additive. Has excellent mechanical stability.

RHOPLEX HA-24:

Percent Solids: 44.5
Minimum Film Formation Temperature C: <0
Ionic Charge: Anionic
pH as packed: 3.0
Density lbs/US gal: 8.7
Brookfield Viscosity, cP: 400
Performance Properties:
 Hand: Intermediate
 Durability to Washing: Excellent
 Durability to Drycleaning: Good
Characterized by its excellent thermo-mechanical stability. Especially recommended for fabric backcoating, printing and fabric finishing.

RHOPLEX E-32:

Percent Solids: 46
Minimum Film Formation Temperature C: <0
Ionic Charge: Nonionic
pH as packed: 3.0
Density lbs/US gal: 8.8
Brookfield Viscosity, cP: 200
Performance Properties:
 Hand: Intermediate
 Durability to Washing: Excellent
 Durability to Drycleaning: Excellent
Forms a firm, tack-free film. Recommended as an adhesive for laminating or flocking; fabric backcoating and finishing; pigment printing and dyeing.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Self-crosslinking(Continued):

RHOPLEX E-358:

Percent Solids: 60
Minimum Film Formation Temperature C: <0
Ionic Charge: Nonionic
pH as packed: 7.0
Density lbs/US gal: 9.0
Brookfield Viscosity, cP: 1600
Performance Properties:
 Hand: Intermediate
 Durability to Washing: Excellent
 Durability to Drycleaning: Excellent
High-solids emulsion recommended as a laminating and flocking adhesive.

RHOPLEX HA-12:

Percent Solids: 45
Minimum Film Formation Temperature C: +5
Ionic Charge: Nonionic
pH as packed: 3.0
Density lb/US gal: 8.8
Brookfield Viscosity, cP: 550
Performance Properties:
 Hand: Full
 Durability to Washing: Excellent
 Durability to Drycleaning: Good
Forms firm, tack-free films. Recommended for fabric finishing and backcoating.

RHOPLEX E-693:

Percent Solids: 50
Minimum Film Formation Temperature C: +12
Ionic Charge: Anionic
pH as Packed: 5.5
Density lbs/US gal: 8.8
Brookfield Viscosity, cP: 60
Performance Properties:
 Hand: Firm
 Durability to Washing: Excellent
 Durability to Drycleaning: Good
Forms stiff films. Recommended as an adhesive for laminating when good drycleaning resistance is required.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Self-Crosslinking(Continued):

RHOPLEX HA-20:

Percent Solids: 46

Minimum Film Formation Temperature C: +24

Ionic Charge: Anionic

pH as packed: 2.2

Density lbs/US gal: 9.8

Brookfield Viscosity, cP: 100

Performance Properties:

Hand: Firm

Durability to Washing: Excellent

Durability to Drycleaning: Good

Forms hard, flameproof films. Recommended if low-flame response in the final product is a necessity.

RHOPLEX TR-407:

Percent Solids: 45.5

Minimum Film Formation Temperature C: +22

Ionic Charge: Anionic

pH as packed: 3.5

Density lbs/US gal: 8.9

Brookfield Viscosity, cP: 30

Performance Properties:

Hand: Firm

Durability to Washing: Excellent

Durability to Drycleaning: Good

Forms a hard, tack-free film that does not discolor when subjected to high temperatures. Excellent mechanical stability. Especially recommended for spray bonding fiberfill that subsequently will be molded.

RHOPLEX HA-16:

Percent Solids: 45.5

Minimum Film Formation Temperature C: +22

Ionic Charge: Nonionic

pH as packed: 3.0

Density lbs/US gal: 8.8

Brookfield Viscosity, cP: 600

Performance Properties:

Hand: Firm

Durability to Washing: Excellent

Durability to Drycleaning: Good

Forms a hard, tack-free film. Especially recommended for fabric finishing when a firm hand is desirable.

ROHM AND HAAS CO.: RHOPLEX Acrylic Emulsions(Continued):

Grade:

Low-Energy Curing and Self-Crosslinking:

RHOPLEX LE-1126:

Percent Solids: 60
Minimum Film Formation Temperature C: <0
Ionic Charge: Cationic
pH as Packed: 4.0
Density lbs/US gal: 8.8
Brookfield Viscosity, cP: 250
Performance Properties:
 Hand: Soft
 Durability to Washing: Good
 Durability to Drycleaning: Good

EMULSION E-1179N:

Percent Solids: 50
Minimum Film Formation Temperature C: <0
Ionic Charge: Cationic
pH as packed: 5.0
Density lbs/US gal: 8.9
Brookfield Viscosity, cP: 350
Performance Properties:
 Hand: Intermediate
 Durability to Washing: Good
 Durability to Drycleaning: Good to excellent

EMULSION E-1242:

Percent Solids: 50
Minimum Film Formation Temperature C: +28
Ionic Charge: Cationic
pH as packed: 5.0
Density lbs/US gal: 8.9
Brookfield Viscosity, cP: 300
Performance Properties:
 Hand: Full
 Durability to Washing: Good
 Durability to Drycleaning: Good

High-solids emulsions with rapid water-release properties.
Cure at low temperatures. Recommended for fabric finishing and
coating; adhesive for flocking and laminating; low-crock binder
in pigment printing.

ROHM AND HAAS CO.: TAMOL Dispersants:

TAMOL dispersants have wide application in the textile industry as primary and auxiliary dispersants for dyes, pigments, or fillers to give better suspension, color value, fluidity, and grinding properties. Unlike many dispersants, these light-colored products do not change color at high temperatures or upon exposure to light and, thus, do not alter the color of dyestuffs.

TAMOL 731-25%:

% Total Solids: 25

Ionic Nature: Anionic

pH: 10.0

Type: Sodium salt of a carboxylate polyelectrolyte

TAMOL 731-SD:

% Total Solids: 93

Ionic Nature: Anionic

pH: 10.0

Type: Sodium salt of a carboxylate polyelectrolyte

Dispersant for fillers used in carpet backcoatings, dyes, pigments and clays; particularly effective with inorganic compounds.

TAMOL 850:

% Total Solids: 30

Ionic Nature: Anionic

pH: 9.8

Type: Sodium salt of a carboxylate polyelectrolyte

Low foaming dispersant and latex stabilizer. Particularly effective with inorganic compounds.

TAMOL L Conc.:

% Total Solids: 47.5

Ionic Nature: Anionic

pH: 9.4

Type: Sodium salt of a naphthalene-formaldehyde condensate.

TAMOL SN:

% Total Solids: 93

Ionic Nature: Anionic

pH: 9.4

Sodium salt of a naphthalene-formaldehyde condensate

Primary dispersants for dyestuffs, clays, and fillers; particularly effective with organic compounds; auxiliary dispersants for dyestuffs, pastes.

TAMOL 963:

% Total Solids: 35

Ionic Nature: Anionic

pH: 6.5

Type: Anionic polyelectrolyte

TAMOL 983:

% Total Solids: 35

Ionic Nature: Anionic

pH: 8.2

Type: Anionic polyelectrolyte

Low cost, low foaming dispersants for pigment printing.

TAMOL 983 offers improved stability with reactive pigments.

ROHM AND HAAS CO.: TRITON Surfactants:

A wide range of anionic and nonionic TRITON surfactants is available for use in the textile industry. They are useful in solving wetting problems, as dyeing assistants, as dye leveling agents, as softeners, as antistatic agents as well as emulsifiers and stabilizers.

Grade:**TRITON CF-10:**

Class: Alkylaryl polyether

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.9

Low-foaming detergent and wetting agent; dyeing assistant.

TRITON DF-16:

Class: Terminated ethoxylated linear alcohol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.2

Very low-foaming detergent; dye leveling agent.

TRITON GR-5M:

Class: Dioctyl sodium sulfosuccinate

Active Ingredient: 60

Type: Anionic

Lbs/US gal: 8.4

High-speed wetting and rewetting.

TRITON N-101:

Class: Nonylphenoxy polyethoxy ethanol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.8

Raw stock wool scouring; wool piece goods scouring; wetting agent in desizing; boil-off agent; carbonizing assistant.

TRITON X-45:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.7

Emulsifying and scouring agent.

TRITON X-100:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.9

Excellent general purpose detergent; wetting, scouring, and emulsifying agent.

ROHM AND HAAS CO.: TRITON Surfactants(Continued):

Grade:

TRITON X-102:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.9

Same applications as TRITON X-100 but a higher cloud-point surfactant.

TRITON X-114:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.8

Same applications as TRITON X-100 but a lower foaming surfactant.

TRITON X-155-90%:

Class: Alkylaryl polyether alcohol

Active Ingredient: 90

Type: Nonionic

Lbs/US gal: 8.5

Emulsifying agent; especially useful for post-stabilization of polymer emulsions and the scouring and desizing of synthetics.

TRITON X-200:

Class: Sodium alkylaryl polyether sulfonate

Active Ingredient: 28

Type: Anionic

Lbs/US gal: 8.9

Wetting and emulsifying agent; dispersant for lime soaps in fulling; dye leveling agent for acid dyestuffs.

TRITON X-207:

Class: Alkylaryl polyether alcohol

Active Ingredient: 100

Type: Nonionic

Lbs/US gal: 8.2

Emulsifying agent; useful in highly refined aliphatic hydrocarbon-water systems.

TRITON X-305:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 70

Type: Nonionic

Lbs/US gal: 9.1

Emulsifying agent compatible with mineral acids or inorganic salt solutions.

TRITON X-405:

Class: Octylphenoxy polyethoxy ethanol

Active Ingredient: 70

Type: Nonionic

Lbs/US gal: 9.2

Coupling agent and scouring assistant in naphthol dyeing.

SANDOZ CHEMICALS: Textile Chemicals:**Accelerating:****SANDOTHERM ACS Liquid:**

nonionic, accelerates the fixation of disperse dyes in prints on acetate and triacetate fibers.

Acid Donor:**SANDACID PB Liquid:**

anionic, phosphate free buffer and dispersant system for dyeing with disperse dyes.

SANDACID V Liquid:

anionic, phosphate free; slowly gives off acid in a hot dyebath.

SANDACID VS Liquid:

anionic; phosphate free; gives off acid in a hot dyebath; lowers the pH more than SANDACID V Liquid.

Aftertreatment to Reduce Effect of Thermomigration:**SANDOPURE TA 100% Liquid:****SANDOPURE TC 100% Liquid:**

nonionic; for aftertreating dyeings on polyester and polyester/cellulosic blends by pad application to reduce the effect of thermomigration on fastness properties.

Antimicrobial Treatment:**FUNGICIDE ZV Liquid:**

nonionic, bacteriostatic agent for cellulose; prevents mildew and mold; does not discolor white goods and has practically no odor; non-durable.

SANITIZED Brand DPN-10:

anionic/nonionic; provides non-durable biostatic activity; used for non-washable textiles; resists mold and mildew, retards germ and bacteria growth, offensive odors, discoloration; deterioration are inhibited; for all fibers.

SANITIZED Brand REQUAT:

cationic; durable antimicrobial agent; renders good permanently free from offensive odors, discoloration, and damage caused by microbial growth, especially in humid areas, for all fibers.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Antimicrobial Treatment(Continued):

SANITIZED Brand SYG:

anionic, broad spectrum agent for synthetic fibers and their blends with cotton and/or wool; especially effective on carpets and industrial fabrics; durable effects prevent offensive odors, discoloration, and deterioration.

SANITIZED Brand XBH:

anionic; broad spectrum agent for all fibers; imparts durability when applied in dyebath; inhibits offensive odors, discoloration, and deterioration.

SANITIZED Brand XTX:

anionic, broad spectrum durable agent for synthetic fibers and their blends with cotton and/or wool; prevents mold, mildew and odor due to decomposition of perspiration by bacteria.

Antistatic Finishing:

ELFUGIN AKT Liquid:

anionic, antistatic agent with anticorrosive effect; suitable for addition to winding oils and conditioning agents; has no negative affect on the thermomigration of disperse dyes.

ELFUGIN PF Liquid:

cationic/nonionic; permanent antistatic agent for all synthetic fibers and their blends; applied by padding process.

Bleaching:

AROSTIT BL Powder:

reduction bleach for wool and nylon fibers; eliminates off-tone fading of wool on exposure to light (e.g. "red fade").

AROSTIT LF Powder:

anionic; effective bleaching in the dyebath of wool, wool blends and other fibers; improves lightfastness of dyed natural wool (eliminates "red fade"), yields brighter shades on wool.

SANPEROX SIF Liquid:

weakly anionic; organic stabilizer for silicate-free peroxide bleaching; has sequestering and dispersing properties; helps to prevent catalytic breakdown of hydrogen peroxide.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Bleaching(Continued):****SANPEROX SIFA Liquid:**

weakly anionic; organic stabilizer for silicate-free peroxide bleaching; caustic stable, especially suited for reinforcing liquors to 18 Be' NaOH (145 g/l); has sequestering and dispersing properties; helps to prevent catalytic breakdown of hydrogen peroxide.

STABILIZER CS Liquid New:

anionic; organic stabilizer with sequestering and dispersing properties for silicate-free and low silicate peroxide bleaching of cellulose and their blends with synthetics; helps to prevent catalytic breakdown of hydrogen peroxide.

Carpet Finishing:**SANDOTEX A Liquid:**

cationic, antistatic agent with softening properties for carpets and space dyed yarns of nylon, polyester and acrylic fibers; does not increase the soiling tendency of carpets; improves running properties of yarn in deknitting, winding, and on the tufting machine.

Crease/Shrink Resist Finishing:**SANDOPERM FE Liquid:**

nonionic, polysiloxane emulsion (elastomer) for elastic, crease resistant and dimensionally stable softening finishes on wovens and knits; for padding processes on all fibers.

SANDOPERM FES Liquid:

nonionic; polysiloxane emulsion (elastomer) for elastic, crease resistant and dimensionally stable softening finishes on wovens and knits; for padding and exhaust processes on all fibers.

SANDOPERM FKN Liquid:

catalyst for SANDOPERM FE finishes.

SANDOPERM FV Liquid:

crosslinking agent for SANDOPERM FE finishes.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Crease Prevention:

IMACOL JN Liquid:

amphoteric; foam reducing; especially suited to reduce or prevent creases and crack marks in wet processing of piece goods; for cotton and blends with cotton.

IMACOL S 300% Liquid:

weakly cationic; low foaming; especially suited to reduce or prevent creases and crack marks in wet processing of piece goods, especially synthetic fibers.

SODYELUBE NSLF Liquid:

anionic; for all types of dyeing machines to reduce or prevent creases and crack marks on synthetic fabrics; low foaming.

Defoaming:

ANTIMUSSOL HTS Liquid:

nonionic, silicone-free defoamer; stable to H.T. and electrolytes.

ANTIMUSSOL WLN Liquid:

nonionic; silicone free defoamer for all textile wet processing at ambient temperatures; extremely stable to alkali and acid.

SODYECO DEFOAMER DSV Liquid:

nonionic; silicone free for batch dyeing; especially effective for jet dyeing with sulfur, vat, and disperse dyes.

SODYECO DEFOAMER F Liquid:

nonionic, silicone emulsion; used in a variety of wet processing operations to control foam.

Desizing:

BACTOSOL 280A Liquid:

bacterial amylase for hot enzymatic desizing at 90-110C/194-230F in weakly acid to weakly alkaline region.

BACTOSOL MTN Liquid:

bacterial amylase for enzymatic desizing at 60C/140F in weakly acid to neutral region.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Dispersing and Dissolving:****LYOCOL O Liquid New:****LYOCOL O New Powder:**

anionic, dispersing agents for dyes and pigments; effective in preventing disperse stain on cellulose in reverse dyeing process.

Dye Carrier:**DILATIN ABM Liquid:**

slightly anionic/nonionic; low foaming; for dyeing polyester under pressure (H.T.) and atmospheric conditions; provides good color yield and migration of disperse dyes.

DILATIN LOM Liquid:

mildly anionic/nonionic; for dyeing polyester under pressure (H.T.) and atmospherically; good color yield of high energy disperse dyes; low odor.

DYMEX Liquid:

nonionic; for high temperature dyeing of flame resistant aramid fibers with selected cationic dyes.

Dye Machine Cleaning:**SANDOCLEAN MCO Liquid:**

anionic/nonionic; heavy duty cleaner used with caustic soda and sodium hydrosulfite in all dyeing equipment for removal of tars and scale caused by trimers, oils, dyestuffs, etc.

Dye Modifier:**SANDOSPACE HPB Liquid:**

cationic; increases the affinity of anionic dyes for nylon, and direct and reactive dyes for cotton; suitable for exhaust or print/steam fixation.

SANDOSPACE S Liquid:

anionic, reduces affinity of nylon for acid dyes and increases its affinity for basic dyes; disperse dyes produce equal depth on treated and untreated nylon; may be applied by print and spray techniques.

THIOTAN TR Liquid:

cationic, reserves nylon and wool from being printed by many acid and metal complex dyes in wet-on-wet printing.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Fixing:

CUPROFIX #52-D Powder:

cationic; copper containing; improves the wet fastness properties of dyeings with CUPROFIX dyes and selected direct cotton dyes; little to no affect on light fastness.

CUPROFIX SL Liquid:

cationic; copper containing; improves the wet fastness properties of dyeings with CUPROFIX dyes and selected direct cotton dyes; light fastness properties maintained in most cases.

INDOSOL CR 85% Liquid:

cationic; reactant fixative for INDOSOL SF dyes with simultaneous crosslinking of cellulosic fibers; pad application most suitable; also improves the fastness properties of reactive dyes.

INDOSOL E-50 Liquid:

INDOSOL E-50 Powder:

cationic; for improving the wet fastness properties of INDOSOL SF and selected DRIMARENE dyes by the exhaust method.

NYLOFIXAN P Liquid:

anionic, improves the wet fastness properties of acid dyeings and prints on nylon; reserves nylon from dyeing or staining by direct dyes.

SANDOFIX SWE Liquid:

cationic, improves the wet fastness properties of dyeings and prints with direct and selected reactive dyes; stable to sulfates, chlorides, phosphates, and carbonates where rinsing is not thorough.

SANDOFIX TP Liquid:

cationic; improves water fastness of dyeings and prints with direct and selected reactive dyes; prevents migration before drying; minimal affect on light fastness.

SANDOFIX WE Liquid:

cationic; improves the wet fastness properties of dyeings and prints with direct and selected reactive dyes.

SANDOLITE LP-160 Liquid:

SANDOLITE LP Liquid:

anionic; UV absorber for improving light fastness of disperse dyeings on polyester and disperse or basic dyeings on modified polyester; non-foaming; apply by exhaust process.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Fixing(Continued):****SANDUVOR VSU Liquid:**

anionic; UV absorber for improving light fastness of acid and disperse dyeings on nylon; may be applied in exhaust or continuous dyeing, and by pad or spray finishing after dyeing.

Fluorescent Whitening:**LEUCOPHOR AC Liquid:**

anionic; recommended for cellulosics; neutral/blue shade; particularly suited for pad applications, can be exhausted with the addition of salt.

LEUCOPHOR BCR Liquid:

anionic; recommended for cellulosics; neutral/red shade; very high maximum white; very suitable for pad application due to low substantivity; extremely stable in resin finishing baths due to exceptional acid resistance and metal salt stability.

LEUCOPHOR BMB Liquid:

anionic; recommended for cellulosics; blue shade; particularly suited for pad applications; can be exhausted with the addition of salt.

LEUCOPHOR BSB Liquid:**LEUCOPHOR BSB Liquid Conc.:**

anionic, recommended for cellulosic, nylon, wool fibers; blue shade; high substantivity and good migration properties make for high suitability in exhaust application on cellulosics; applied in a hydrosulfite reduction bleach to nylon and wool; very high maximum white.

LEUCOPHOR EFN Liquid Conc.:

anionic; recommended for polyester, acetate, triacetate, polyvinyl chloride, Qiana fibers; neutral to slightly blue shade; applicable in almost all processes; high maximum white; aqueous dispersion; stable to chlorite and peroxide.

LEUCOPHOR EFR Liquid:

aqueous anionic dispersion; red shade; recommended for polyester, acrylic; acetate, triacetate, polyvinyl chloride fibers; suitable for almost all processes; stable to chlorite; good light and wetfastness.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

LEUCOPHOR EHB Liquid:

LEUCOPHOR EHB Liquid Conc.:

aqueous anionic dispersion; recommended for polyester fibers; neutral to blue shade; suitable for pad and exhaust processes; not stable to chlorite.

LEUCOPHOR KCB Liquid:

cationic; recommended for acrylic fibers, blue shade; very high maximum white; suitable for exhaust and pad applications; stable to chlorite.

LEUCOPHOR KNR Liquid:

cationic; recommended for acrylic fibers; reddish shade; high maximum white; suitable for exhaust and pad applications; not stable to chlorite.

LEUCOPHOR PAB Liquid:

anionic; recommended for nylon fibers; neutral shade; suitable for exhaust and pad applications; good wetfastness, lightfastness, fastness to gas fading.

LEUCOPHOR PAT Liquid:

anionic; recommended for nylon, wool, silk fibers; neutral to slightly blue shade on nylon, red shade on wool and silk, very suitable for pad-thermosol, acid shock, and pad steam on nylon, can be exhausted from a hydrosulfite reductive bleach; exhibits good fastness to sublimation, dry heat, light.

LEUCOPHOR PC Liquid:

LEUCOPHOR PC Liquid Conc.:

anionic; recommended for nylon, cellulosic, wool, silk fibers; produce a high maximum white on nylon; neutral to red shade; can be applied on most conventional equipment by exhaust and pad processes.

LEUCOPHOR SF Granules:

cationic; recommended for wool, silk, nylon, acetate, triacetate fibers; slightly red shade on nylon, acetate, triacetate; blue shade on wool and silk; low lightfastness; must be solubilized with sulfuric acid/SANDOPAN DTC-100M Liquid; primarily for exhaust applications.

LEUCOPHOR WSA Liquid:

cationic; recommended for wool, silk, nylon, acetate, triacetate fibers; neutral to slightly red shade on nylon, acetate, triacetate, blue shade on wool and silk; low lightfastness, suited for exhaust and pad applications.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Foam Finishing:****SANDOZ SULFATE AT Liquid:**

anionic; foaming agent for applying various finishes to fabrics in Gaston County FFT equipment and other foam finishing equipment.

Garment Dyeing:**SANDOCORIN 8132-B Liquid:****SANDOCORIN 8160 Liquid:**

anionic, protective agent for metals during garment dyeing; will reduce or prevent tarnishing and corrosion of metallic-buttons, fasteners, and zippers depending on the dyeing system used.

Improving Fastness to Chlorinated Water:**FADEX CL Liquid:**

anionic; a dyestuff protecting agent for improving fastness of acid dyes on nylon and nylon/spandex fibers to chlorinated water; fastness to chlorination is also improved on wool/nylon blends subjected to anti-shrink processes.

Improving Sewability:**SANDOLUBE NV Liquid:**

amphoteric; for improving sewability of all types of fibers; softens and lubricates; also very effective for napping, for exhaust and padding processes.

SANDOLUBE NVJ Liquid:

cationic; for improving sewability of all fibers; softens and lubricates; also effective for napping; for exhaust or pad processing in short liquor jets.

SANDOLUBE NVN Liquid:

nonionic, for improving sewability of all fibers; softens and lubricates; also very effective for napping; for padding processes.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Levelling:

ARKOLEV MP Liquid:

cationic, retards the exhaustion and helps migrate cationic dyes; low foaming.

DYASSIST 486 Liquid:

cationic, levelling agent for dyeing with acid, milling, neutral premetallized and chrome dyes on wool; also suitable for partial stripping.

LYOGEN BE Liquid:

anionic, helps prevent barre' dyeing of nylon with acid dyes; has good neutral affinity for nylon.

LYOGEN DFT Liquid:

nonionic, levelling agent for disperse dyes especially on polyester; also suitable for stripping polyester dyeings.

LYOGEN DK Liquid:

amphoteric; levelling agent for direct, vat, and sulfur dyes.

LYOGEN FN Liquid:

amphoteric, levelling agent for dyeing wool with reactive, acid and metal complex dyes.

LYOGEN HN Liquid:

slightly cationic; levelling agent for dyeing acid, metal complex, and reactive dyes on nylon, wool, nylon/wool and nylon/cellulosic blends.

LYOGEN NL Liquid:

anionic/slightly cationic blend; prevents barre' dyeing and acts as levelling agent when dyeing nylon with acid and metal complex dyes.

LYOGEN P Liquid:

anionic; prevents barre' dyeing of nylon with acid dyes.

LYOGEN SMK-40 Liquid:

amphoteric, levelling, dispersing agent and anti-precipitant; recommended for 1:2 metal complex dyes for dyeing wool, nylon, silk and for combined application of anionic and cationic dyes.

LYOGEN UL Liquid:

amphoteric; universal, dye substantive levelling agent with liquor stabilizing effect when dyeing wool and nylon fibers with all classes of dyes.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Levelling(Continued):****LYOGEN V (U) Liquid:**

nonionic; prevents frosting in the printing and continuous dyeing of wool and nylon fibers.

LYOGEN XC Liquid:

cationic; levelling agent for dyeing with acid, milling, and direct dyes; also suitable for stripping.

SANDOGEN BM Liquid:

anionic; low foaming, high temperature levelling agent for disperse dyes; prevents barre' dyeing of polyester.

SANDOGEN CN Liquid:

anionic, low foaming; prevents barre' dyeing of nylon with acid dyes.

SANDOGEN NH Liquid:**SANDOGEN NH Liquid Conc.:**

slightly cationic; levelling agent for dyeing acid, metal complex, and reactive dyes on nylon, wool, nylon/wool and nylon/cellulosic blends.

SANDOZ SULFONATE 2A1 38% Liquid:**SANDOZ SULFONATE 2A1 45% Liquid:**

anionic; prevents barre' dyeing of nylon with acid dyes; good neutral affinity for nylon.

SANDOZ SULFONATE AAS-45S Liquid:

anionic; detergent with good wetting properties.

SODYECO LIQUID LEVELUP HW:

anionic, levelling agent for fast exhausting sulfur, vat, and direct dyes especially in combination shades.

SODYECO ZETACHEM DBA Liquid:

anionic; levelling and dispersing agent for high temperature dyeing of polyester.

SODYECO ZETAPAD Liquid:

anionic; agent for level pad application of disperse dyes on polyester fabrics.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Mercerizing:

MERCEROL AS Liquid:

anionic, highly efficient wetting agent for mercerizing baths producing rapid and uniform penetration of the caustic soda solutions; enhances shrinkage and swelling action of the mercerizing liquor; stable in 42-48 TW NaOH (226-268 g/l)

MERCEROL DM Liquid:

anionic; provides lubrication, sequestering, dispersing and effective wetting for mercerizing baths.

Napping:

SANDOLUBE TRA Liquid:

cationic; napping assistant; has antistatic effect for all synthetic fibers; no negative affect on the thermomigration of disperse dyes; also improves sewability.

Odor Masking:

SODYEFRESH Liquid:

masking agent for use in dyebaths to mask objectionable odors; also masks fumes in plant exhaust systems.

Prevention of Migration:

SODYECO ANTIMIGRANT ST Liquid:

anionic, prevents dye migration in continuous dyeing with disperse and vat dyes and pigments.

Printing:

ALEGPON PD Liquid:

cationic; discharge print assistant; for use in discharge print pastes to produce full white discharge on pigment printed fabrics.

PRINTOGEN HD Paste:

slightly cationic; carrier for increasing color yield of disperse dyes on polyester and Qiana prints in super heated steam fixation; does not impair light fastness of prints prior to fixation; does not corrode screen lacquer or thermoplastic adhesive.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Reducing:****SANDOZ ANTIOXIDANT B:**

reducing agent for use with SANDOZOL dyes.

SODYEFIDE ASL Liquid:**SODYEFIDE B Liquid:**

reducing agent of low alkalinity for soluble sulfur dyes.

Reduction Protection:**REVATOL S Powder:**

anionic; protects sensitive dyes against reduction.

REVATOL SP Powder:

anionic, protects sensitive dyes against reduction.

Roll Cleaning:**IMEROL RC Liquid:**

anionic, solvent emulsion for cleaning deposits from guide rolls and squeeze rolls in most wet processing and finishing operations.

Scouring, Boiling Off:**SANDOPAN CBA New Liquid:**

anionic, low foaming detergent, wetting and emulsifying agent for the pretreatment of cellulose and their blends with synthetics; very high alkali stability (to about 200 g/l NaOH 100%).

SANDOPAN DTC-135 Liquid:**SANDOPAN DTC-100M Liquid:****SANDOPAN DTCS Liquid:****SANDOPAN DTC-L Liquid:**

anionic, detergent, wetting and emulsifying agent, good alkali stability (to 80g/l NaOH 100%); effective in all processing stages and for all fibers.

SANDOPAN LF (A) 400% Liquid:**SANDOPAN LF (A) Liquid:**

nonionic; detergent with low foam formation and powerful degreasing action for scouring texturized polyester and polyamide fibers; also suitable for one-bath scouring and dyeing especially in high foaming equipment.

SANDOZ CHEMICALS: Textile Chemicals(Continued):

Scouring, Boiling Off(Continued):

SANDOPAN TFL Double Strength Liquid:

anionic, detergent and dispersing agent for all fibers; effective in maintaining stable disperse dyebath; has strong lubricating action to prevent cracks and creases during scouring and dyeing.

SANDOXYLATE AC-40 Liquid:

nonionic, alcohol ethoxylate with good wetting and emulsifying properties used in detergent formulations.

SANDOXYLATE AD-4 Liquid:

nonionic, low foaming alcohol ethoxylate with good wetting and emulsifying properties.

SANDOXYLATE AD-6 Liquid:

nonionic, low to moderate foaming surfactant, exhibits good wetting and emulsifying properties.

SANDOZ SULFATE RA Liquid:

anionic, detergent, wetting, and emulsifying agent; does not require high alkalinity to be effective.

SANDOZ SULFONATE AAS-60S:

anionic, high foaming detergent with good wetting properties.

SIRRIX AS Liquid:

anionic; boiling-off assistant with sequestering effect for cotton and other natural cellulosic fibers, even in strongly alkaline liquors.

SODYECO SCOUR 201A Liquid:

anionic/nonionic; low foaming detergent, emulsifying agent; effective for removal of oil, grease and dirt in synthetics and cellulose.

SODYECO SCOUR TR Liquid:

anionic/nonionic; detergent, emulsifying agent for removal of oil, grease, and dirt from most fibers in a variety of application procedures.

Sequestering:

SODEYCO SULFALOX 100 Liquid:

tetrasodium ethylenediamine tetraacetic acid; water softener and sequestering agent for use at all stages of processing.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**Sequestering(Continued):****SIRRIX AS Liquid:**

anionic, boiling-off assistant with sequestering effect for cotton and other natural cellulosic fibers, even in strongly alkaline liquors.

Softening:**CERANINE HC Conc. Liquid:**

cationic; softener for all fibers, especially in after-treatments.

CERANINE HCA Granules:**CERANINE HCA Liquid:****CERANINE HCA Paste:****CERANINE HCA Small Chunks:**

weakly cationic; softener for all fibers; suitable for pad and exhaust applications; outstanding for whites and light shades; good resistance to precipitation in presence of alkalies, sulfates, and selected anionic compounds.

CERANINE HCS Conc Liquid:

cationic; softener for all fibers; suitable for exhaust and pad applications; good resistance to precipitation in the presence of alkalies and sulfates.

CERANINE PN Chunks:

cationic, softener for all fibers; especially acrylic fibers; good stability to sulfates, phosphates, and alkalies.

CERANINE PNL Granules:**CERANINE PNL Liquid:**

cationic; softener for all fibers; especially suited for acrylic fibers; good stability to sulfates, phosphates, and alkalies.

CERANINE VR Paste:

anionic; for softening all types of fibers; especially recommended for white goods and electrostatic flocking of viscose rayon and nylon; also used to prevent cracks and creases in wet processing of cellulosic piece goods.

DILASOFT RW Liquid:**DILASOFT SRD Liquid:**

cationic/nonionic; substantive agent for reducing drying time; has moisture absorbency and softening properties; recommended especially for cellulose and their blends.

SANDOZ CHEMICAL: Textile Chemicals(Continued):

Softening(Continued):

SILSMOOTH G Liquid:

nonionic; contains silicone; softener and lubricant for most fibers; especially suited for pad applications, although can be applied in batch equipment at low liquor to goods ratio.

SILSMOOTH VEL Liquid:

nonionic; contains silicone; softener and lubricant with moisture absorbency properties; recommended for exhaust and padding processes.

SODYECO SOFTENER A-100 Liquid:

anionic-nonionic blend; softener, lubricant, and antistatic agent especially for aftertreatment of sulfur dyed yarn and fabric; also effective on polyester, nylon and their cotton blends; non-yellowing.

Solvent Scouring:

IMEROL JS Liquid(non-chlorinated solvent):

anionic; detergent and fat dissolving action on all fibers; stain remover and scouring agent for alkali and bleaching pretreatment stages; surfactant/solvent blend.

IMEROL TAS Liquid(non-chlorinated solvent):

anionic; low foaming scouring agent for synthetic fibers in continuous and batch processes; emulsifying and fat dissolving action; surfactant/solvent blend.

Stain Resistant Carpet Treatment:

SANDOZ STAIN STOPPER 27623:

anionic; offers protection against carpet stains; particularly those caused by F.D. & C. food dyes in soda, fruit juice, jams, jellies, popsicles, mouth wash, children's powdered drinks, etc.

Stripping Dyestuffs:

ALGEPON AK Liquid:

cationic; a stripping assistant for colors which are difficult to discharge; especially effective in stripping goods dyed or printed with pigment colors.

SANDOZ CHEMICAL: Textile Chemicals(Continued):**Stripping Dyestuffs(Continued):****ALGEPON XR Liquid:**

mildly cationic; stripping assistant for vat dyes, especially effective on those of the anthraquinone type (e.g. olive greens); also effective in stripping dyes of the azo type.

HYDROLITE W Conc. Liquid:

modified zinc sulfoxylate formaldehyde; used as agent for stripping wool and synthetic fibers, especially nylon and acetate; it has high efficiency over a wide range of dyes.

STRIPPER TS Conc. Liquid:

titanous sulfate solution; recommended as stripping agent for reactive and direct dyes on cellulosics; strips dyes with a minimum loss of tensile strength; also effective in stripping acid, developed, and metallized dyes.

Washing Off:**EKALINE G-80 Liquid:**

nonionic; for use in washing off dyeings; also has a levelling, emulsifying, and dispersing action.

SANDOPURE MC Liquid:

anionic; for use in reduction clearing of disperse dyeings and prints on polyester.

SANDOPURE MCL Liquid:

anionic; low foaming; for use in reduction clearing of disperse dyeings and prints on polyester.

SANDOPURE SOM II Liquid:

cationic; for use in washing off textile prints produced with acid and metal complex dyes, as well as reactive and disperse dyes. Effective when used with TECOSAN printing colors (disperse/reactive).

Water Repellent Finishing:**CEROL A Liquid:**

cationic; non-durable zirconium/wax emulsion; for water repellent treatment of cotton and cotton/polyester blends; for best results apply by padding processes.

SANDOZ CHEMICAL: Textile Chemicals(Continued):

Water Repellent Finishing(Continued):

CEROL EWL Liquid:

cationic; used as fluorochemical extender to reduce the quantity of expensive fluorochemical and maintain ratings for water and oil repellency; for cellulosic and synthetic fibers and their blends; apply by padding technique; may be used by itself as a washfast water repellent finish.

HY-AD HF Liquid:

extender and stabilizer for solvent type fluorochemicals to reduce the quantity of expensive fluorochemical and maintain ratings for water and oil repellency; for all fibers; apply by spray, dip, pad.

HYDROPRUF 200 Liquid:

nonionic; silicone water repellent; durable to washing and drycleaning; for water repellent finish on all fibers; apply by padding technique.

COBELFIX HW Liquid:

catalyst for HYDROPRUF 200 Liquid.

Wetting:

SANDOZIN CD Liquid:

nonionic; wetting agent and detergent; low foaming; applicable at most stages of processing.

SANDOZIN CDL Liquid:

nonionic; wetting agent and detergent; very low foaming; applicable at most stages of processing.

SANDOZIN D-100 Liquid:

nonionic; wetting agent and detergent; effective in scouring synthetic fibers and their blends with cotton; wetting/scouring/fulling of wool.

SANDOZIN N HI Conc. Liquid:

anionic; low foaming wetting agent with rewetting properties; softens and lubricates the goods.

SODYECO PENETRANT EH Mod. Liquid:

SODYECO PENETRANT EH Double Liquid:

anionic; low foaming, non-retardant wetting agent for dyeing with sulfur, SODYECO vat, reactive; and direct dyes; very effective in alkaline dyeing systems.

SANDOZ CHEMICALS: Textile Chemicals(Continued):**SODYECO PENETRANT SCA Liquid:**

anionic; wetting agent particularly effective in sulfur dye baths; also effective in dyeing of vat, developed, and other dye classes.

SODYECO NIW Liquid:

nonionic; wetting agent and detergent; effective in resin finishing, preparation, and dyeing (except in sulfur and vat dyeings).

SODYEFAC NLF Liquid:

nonionic, low foaming wetting agent and detergent; effective in resin finishing, preparation, and dyeing (except in sulfur and vat dyeings.)

SCHER CHEMICALS, INC.: Products for the Textile Industry:

Trade Name:

COLSOL:

Nature: Fatty Amide
Appearance: Paste
% Act.: 25
Ionic Type: Cationic
Cotton and wool softener and lubricant. Finishing agent.

LUBRISOL:

Nature: Natural Oil
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Textile lubricant.

NYLOSET FINISH:

Nature: Amide-Resin
Appearance: Liquid
% Act.: 25
Ionic Type: Cationic
Nylon builder and softener.

POLYSOFT CA:

Nature: Polyethylene
Appearance: Liquid
% Act.: 25
Ionic Type: Cationic
Anti-static agent, lubricant, and softener compatible with resin finishes.

SCHERCASSIST AC:

Nature: Quaternary
Appearance: Liquid
% Act.: 60
Ionic Type: Cationic
Dye-levelling agent for acrylics.

SCHERCO FINISH 4L:

Nature: Resin Dispersion
Appearance: Liquid
% Act.: 25
Ionic Type: Nonionic
Lubricant for sewing, cutting, napping and softening all textiles.

SCHER CHEMICALS, INC.: Products for the Textile Industry
(Continued):

Trade Name:

SCHERCOLENE SB:

Nature: Detergent
Appearance: Liquid
% Act.: 80
Ionic Type: Anionic
Heavy duty textile scouring agent.

SCHERCOLUBE 707:

Nature: Fatty Ester Ethoxylate
Appearance: Paste
% Act.: 25
Ionic Type: Nonionic
Softener for knit goods and lubricant for nylon separator threads in sweater bodies.

SCHERCOMID EAC:

Nature: Modified Coco Amide
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Wool scouring and fulling agent effective at low temperature.

SCHERCOMID EAC-S:

Nature: Solubilized Coco Amide
Appearance: Liquid
% Act.: 30
Ionic Type: Nonionic
Cold water scouring and fulling agent for wool.

SCHERCOMID EACS-100:

Nature: Mixed Fatty Amide
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Cold water textile detergent and wool fulling agent.

SCHERCO SOFTENER #1:

Nature: Quaternary
Appearance: Liquid
% Act.: 15
Ionic Type: Cationic
Substantive softener and finishing agent for orlon and acrilan.

SCHER CHEMICALS, INC.: Products for the Textile Industry
(Continued):

SCHERCO SOFTENER #366:

Nature: Quaternary
Appearance: Liquid
% Act.: 15
Ionic Type: Cationic
Softening agent for acrylics and synthetics

SCHERCOTARDER:

Nature: Fatty Amine
Appearance: Liquid
% Act.: 40
Ionic Type: Cationic
Retarding agent for cationic dyes.

SCHERCOTERGE 140:

Nature: Ethoxylated Amide
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Low temperature wool scouring and fulling agent. Post-scouring agent for dyed or printed goods.

SCHERCOWET DOS-70:

Nature: Sulfosuccinate
Appearance: Liquid
% Act.: 70
Ionic Type: Anionic
Wetting and rewetting agent for all wet processing.

SCHERPOL LSB:

Nature: Ethoxylated Alcohol
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Non-foaming, jet-dyeing assistant for polyester. Minimizes subsequent smoke formation.

SCHERSOFTOIL P:

Nature: Ester of Natural Oils
Appearance: Liquid
% Act.: 100
Ionic Type: Nonionic
Winding lubricant applied in a package dye machine.

TERGITEX KW:

Nature: Polyether Solvent Blend
Appearance: Liquid
% Act.: 50
Ionic Type: Nonionic
Oil removal from garnetted wool and knitted goods.

SENTRY/CUSTOM SERVICES CORP.: Products for the Textile Dyeing & Finishing Industry:

- * Antistat Agents
- * Detergents
- * Dispersing Agents
- * Dispersing Agents for Polyester Dyes
- * Defoamers
- * Dye Carriers
- * Dye Fixatives
- * Fire Retardants
- * Label Finishes
- * Leveling Agents
- * Migrating Assistants
- * Napping Agents
- * Penetrants
- * Retarders
- * Resins: Glyoxol, Melomine, and/or Urea Formaldehyde, Poly vinyl Acetate, Acrylates, Co-Polymers
- * Sequestrants - Various types
- * Softeners - Cationic - Anionic, Polyethylene, etc.
- * Solvent Scouring Agents
- * Water Repellants - Non durable
- * Weighters
- * Wetting Agents

TRYCHEM DLS:

Clearing Agent for Dyed Polyester Stripping Agent for Nylon

It is an effective, economical scouring and clearing agent for natural and synthetic fibers dyed or printed with disperse, acid, basic, direct, fiber reactive and other types of dyes. It is safer, more efficient, and more economical to use than conventional sodium hydrosulfite.

Advantages:

- * Effectively strips acid dyes from nylon.
- * Removes unfixed dye and residual oil from dyed or printed polyester, nylon and their blends.
- * Safer, more economical and more efficient than conventional hydro/caustic systems.
- * Removes most fugitive tints.
- * Effectively cleans machinery.

Typical Properties:

Physical form: Off-white, free-flowing powder
 pH, 1% solution: 12+-5
 Solubility: Readily soluble in water
 Solution appearance: Slightly hazy at 25C

SEQUA CHEMICALS, INC.: Catalysts:

Catalyst 531:

An activated water based solution of magnesium chloride that provides rapid curing of thermosetting reactants.

Catalyst 531 is a magnesium chloride based product that greatly increases the cure rate of thermosetting reactants, allowing faster frame speeds or lower cure temperatures. Catalyst 531 has minimal shade change properties and is compatible with many optical brighteners.

Advantages:

- * Provides fast cure system with ultra low formaldehyde reactants
- * Minimal effect on shades
- * Provides excellent whiteness retention
- * Compatible with most reactants
- * Miscible with water in all proportions

Typical Properties:

Type: Activated magnesium chloride catalyst

Appearance: Colorless liquid

pH: 1.0

Density: 9.6 lbs./gallon

Catalyst KR:

A water based solution of magnesium chloride.

Catalyst KR provides adequate cure to many thermosetting resins and reactants in both precure and post cure applications. It is a mild acting catalyst that provides minimal shade change with reactive and direct dyestuffs when used in permanent press finishes. It has excellent compatibility with most commonly used finishing agents.

Features:

- * Compatible with most optical brighteners
- * Minimal shade change when used with thermosetting resins
- * Can be used with many types of resins and reactants
- * Liquid for ease of handling
- * Miscible with water in all proportions

Typical Properties:

Type: Magnesium chloride catalyst

Appearance: Colorless liquid

pH: 5.0

Density: 10.5 lbs./gallon

SEQUA CHEMICALS, INC.: Polymers/Binders:**Fiberfill and Nonwovens Binders:**

Fast cure rate and high resiliency

Sequa Chemicals has developed a line of polymer emulsions designed to meet nearly any need for stiff and resilient bonding in fiberfill and nonwovens. The five products in this family cover the spectrum from a high quality general purpose sprayable polymer emulsion for furniture and quilt stuffing fiberfills to a highly water resistant polymer emulsion for high wet-strength filter media.

All these emulsion polymers are aqueous based, supplied at 45% solids. The polymers are all self-crosslinking and self-catalyzed to provide maximum durability.

SUNCRYL CP-15:

Tg (C): +12
Polymer type: vinyl-acrylic
Solids (%): 45
pH: 4.0
Viscosity (cps): <100
Grit (ppm) (200 mesh screen): <50
Specific gravity: 1.080

SUNCRYL RW-41SP:

Tg (C): +30
Polymer type: vinyl-acrylic
Solids (%): 45
pH: 4.0
Viscosity (cps): <100
Grit (ppm) (200 mesh screen): <50
Specific gravity: 1.087

SUNCRYL RW-43:

Tg (C): +30
Polymer type: vinyl-acrylic
Solids (%): 45
pH: 4.0
Viscosity (cps): <100
Grit (ppm) (200 mesh screen): <50
Specific gravity: 1.087

SUNCRYL SA-220:

Tg (C): +35
Polymer type: styrene-acrylic
Solids (%): 45
Viscosity (cps): <300
Grit (ppm): <50
Specific gravity: 1.040

SEQUA CHEMICALS, INC.: Polymers/Binders(Continued):

PERMALOFT II:

Tg (C): +45
Polymer type: styrene/vinyl-acrylic
Solids (%): 45
pH: 3.5
Viscosity (cps): <100
Grit (200 mesh screen) (ppm): <50
Specific gravity: 1.070

PERMALOFT IV:

Tg (C): +45
Polymer type: methyl methacrylate/vinyl-acrylic
Solids (%): 45
pH: 3.5
Viscosity (cps): <200
Grit (200 mesh screen) (ppm): <50
Specific gravity: 1.075

Advantages of these SUNCRYL and PERMALOFT products:

- * Fast curing without post-added catalyst
- * Low grit levels for trouble-free spray applications
- * Excellent mechanical stability
- * Durable to washing and dry cleaning
- * Accept clay loading up to 200 phr
- * Ultrasonic sealable

SUNCRYL CP-15:

- * Slightly moderated hand for less scroop and rattle
- * Less 'crusty' at high add-ons

SUNCRYL RW-41SP:

- * Economical 'all-purpose' binder
- * Approved MIL-SPEC B-41826F Type I

SUNCRYL RW-43:

- * Extra whiteness in bonded goods
- * Approved MIL-SPEC B 41826F Type I

SUNCRYL SA-220:

- * Unaffected by water or humidity
- * Polyester and cellulose adhesion

PERMALOFT II:

- * Extra resiliency, even when compressed at elevated temperatures
- * Hard opaque polymer

PERMALOFT IV:

- * Clear, tough film with high temperature rigidity
- * Specific adhesion to polyester

SEQUA CHEMICALS, INC.: Polymers/Binders(Continued):**SUNCRYL CP-50:**

SUNCRYL CP-50 is a soft self-crosslinking vinyl acetate acrylic copolymer designed specifically for textile backcoating applications.

Its soft hand combined with a high degree of crosslinking produces a very soft coating which is durable to dry cleaning and washing.

The large particle size helps coat porous fibers and produces efficient coatings on corduroy, upholstery, drapery and ticking.

Physical Properties:

Solids: 45.5+-0.5%

pH: 4.0+-0.5

Particle Size: 0.2 microns

Advantages:

- * Soft polymer for soft fabrics
- * Crosslinking for good wash and dryclean durability
- * Large particle size for efficient coatings
- * Good foaming rate for froth applications
- * Compounding stability allows mixing with fillers and thickeners
- * High polymer strength contributes to fabric strength and high seam slippage values
- * Softness achieved with vinyl-acrylic technology permits cost savings and good performance in nonwovens bonding

SUNCRYL CP-75:

Nonwovens Binder

Suitable for a wide variety of nonwoven end-use applications. SUNCRYL CP-75 is also used as a back coating binder for stabilizing corduroy woven fabrics. SUNCRYL CP-75 is a soft, self-crosslinking vinyl acetate-acrylic copolymer emulsion which forms a soft, flexible film.

Features:

- * Froths to low foam density without extra froth aid
- * Non yellowing at elevated temperatures
- * Excellent mechanical stability
- * Low blocking due to high molecular weight
- * Tough but soft binder
- * Self crosslinking

Typical Properties:

Solids: 45.0%

pH: 4.0

Viscosity: Less than 100 cps

Tg: 30C

Density: 8.8 lbs/gallon

SEQUA CHEMICALS, INC.: Polymers/Binders(Continued):

SUNCRYL HP:

High Pile and Needle Punch Fabric Bonding

SUNCRYL HP binder is a stiff self crosslinking anionic vinyl acetate copolymer emulsion.

SUNCRYL HP binder has been specifically designed for foam application to shoddy pad and high pile fabrics where penetration into the substrate is desirable.

SUNCRYL HP polymer can achieve excellent durability to washing and dry cleaning without the use of an external crosslinker.

No additional froth aid is needed to develop a stable foam with fine bubble size. This statement is true of clay loaded systems as well.

Advantages:

- * Froths to low foam density without froth aids
- * Clay loaded systems do not require the addition of a froth aid
- * Low foam viscosity allows foam to penetrate into substrate
- * Fast cure rate
- * Completely durable to washing and dry cleaning
- * Non yellowing at elevated temperatures
- * Low grit content
- * Excellent mechanical stability

Physical Properties:

Solids: 45%

pH: 5.0

Viscosity: 50 cps

SUNCRYL RW-41ND:

Foamable binder for Fiberfill, Shoddy, Nonwovens, and Sliver Knit

SUNCRYL RW-41ND binder is a stiff, self-crosslinking vinyl acetate copolymer emulsion with excellent durability to washing and dry cleaning without the necessity of adding a catalyst or external crosslinker.

SUNCRYL RW-41ND emulsion is especially designed for froth and foam application equipment. No additional soap or froth aid is needed to develop a stable foam with fine bubble size.

Features:

- * Froth to low foam density without extra froth aid
- * Fast rate of cure (95% in 30 seconds/250F)
- * Non yellowing at elevated temperatures
- * Excellent mechanical stability
- * Fiberfill and nonwovens can be quilted with ultrasonic stitching

Physical Properties:

Specific Gravity: 1.087

Solids: 45.0%

pH: 3.8

SEQUA CHEMICALS, INC.: Resin/Reactants:**PERMAFRESH 85:**

A thermosetting reactant in water that provides very high levels of performance to cellulose containing fabrics with low formaldehyde emission.

Shrinkage control and fabric smoothness, durable to many home or commercial launderings, are very desirable properties for most textile uses. PERMAFRESH 85 provides high performance results while maintaining a low level of formaldehyde liberation on the treated substrate.

Advantages:

- * Low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Very easily cured with magnesium based catalyst
- * Minimum effect on shade

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH 106:

A thermosetting melamine derivative in water that cross links polymeric materials builds hand of nylon fabric and provides shrinkage control to cellulosic fabrics.

PERMAFRESH 106 reacts with starches and synthetic polymers such as polyvinyl alcohol and acrylates. Alone, PERMAFRESH 106 provides a firm hand on polyester and nylon fabrics and reacts with cellulosic fabrics to provide shrinkage control. PERMAFRESH 106 also aids in obtaining and maintaining satisfactory results when used with water and/or oil repellent products.

Advantages:

- * Insolubilizers, starches and polyvinyl alcohol
- * Provides firm, resilient finish on nylon
- * Increases washfastness of water or repellent and fluoro-chemical finishes
- * Controls shrinkage of cellulosic fabrics
- * Improves crockfastness of printed fabrics

Typical Properties:

Type: Melamine Derivative

Appearance: Clear viscous liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):

PERMAFRESH 113-B:

High performance precure or postcure finishes

Shrinkage control, fabric smoothness, and crease retention durable to many home or commercial launderings are very desirable properties for postcure apparel fabrics. PERMAFRESH 113-B provides these properties while also providing shade change protection and whiteness retention. PERMAFRESH 113-B is also suitable for most precure applications where shade change of sensitive dyestuffs is a major problem.

Advantages:

- * Chlorine resistant to home launderings--can be used for precure and postcure applications
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Easily cured with magnesium based catalyst
- * Very minimal effect on shade
- * Compatible with most finishing agents

Typical Properties:

Type: Buffered imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH 125:

A self-catalyzed thermosetting reactant for reactive and direct dyed knits

Shrinkage control and fabric smoothness with little, if any, effect on shade are very desirable properties for textile uses where very sensitive dyestuffs are needed to produce the desired shade. PERMAFRESH 125 can provide this with many direct and reactive dyestuffs. PERMAFRESH 125 is self-catalyzed with a specially selected system. Although designed primarily for knit fabrics it can be used on cellulose containing woven fabrics.

Advantages:

- * Chlorine resistant to home launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Minimum effect on shade of reactive and direct dyestuff
- * Self-catalyzed for ease of formulation
- * Good strength retention properties

Typical Properties:

Type: Self-catalyzed glyoxal based reactant

Appearance: Clear to straw colored liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):**PERMAFRESH 850:**

A high solids thermosetting reactant in water that provides very high levels of performance to cellulose containing fabrics with low formaldehyde emission.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for most textile uses. PERMAFRESH 850 provides high performance while maintaining a low level of formaldehyde liberation on the treated substrate.

Advantages:

- * Low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Very easily cured with magnesium based catalyst
- * Minimum effect on shade
- * Low amounts needed for excellent performance

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH LF-2:

A fast curing thermosetting reactant in water that provides high levels of performance to cellulose containing fabrics

Shrinkage control, fabric smoothness, and color retention durable to home launderings are very desirable properties for most textile uses including apparel and home furnishing. PERMAFRESH LF-2 provides these properties while also providing optimum lightfastness to reactant dyestuffs.

Advantages:

- * Fast curing with magnesium based catalyst
- * Chlorine resistant to home laundering
- * Excellent dry scorch resistance control
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Minimum effect on shade and lightfastness of reactive colors

Typical Properties:

Type: Glyoxal based crosslinker

Appearance: Clear to straw colored liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):

PERMAFRESH LO:

A thermosetting reactant that provides high levels of performance to cellulose containing fabrics with extremely low formaldehyde emission.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for most textiles uses including apparel, home furnishing, and many industrial applications. PERMAFRESH LO provides these properties while producing and maintaining an extremely low level of formaldehyde liberation on the treated substrate.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Easily cured with magnesium based catalyst
- * Minimum effect on shade

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH MEL:

Handbuilder for most fibers, shrinkage control for cellulose, and crosslinker for polymers

PERMAFRESH MEL resin reacts with starches and synthetic polymers such as polyvinyl alcohol and acrylates. Alone, PERMAFRESH MEL resin provides a firm hand on polyester and nylon fabrics and reacts with cellulosic fabrics to provide shrinkage control. PERMAFRESH MEL resin also aids in obtaining and maintaining satisfactory results when used with water and/or oil repellent products.

Advantages:

- * Insolubilizes starches and polyvinyl alcohol
- * Provides firm, resilient finish on nylon, polyester and polyester/cotton blends
- * Increases washfastness of water or repellent and fluoro-chemical finishes
- * Controls shrinkage of cellulosic fabrics
- * Improves crockfastness of printed fabric

Typical Properties:

Type: Melamine derivative

Appearance: Clear viscous liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):**PERMAFRESH MSC:**

Minimal shade change on pH sensitive knits

Shrinkage control and fabric smoothness with minimal shade change potential are very desirable properties for knit fabrics used in apparel and home furnishings. PERMAFRESH MSC provides these properties while producing and maintaining a low level of formaldehyde liberation on the treated substrate. PERMAFRESH MSC is self-catalyzed with a specially selected system.

Advantages:

- * Low formaldehyde levels on cured fabrics
- * Chlorine resistant
- * Self-catalyzed for ease of formulating
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Minimum effect on shade

Typical Properties:

Type: Modified self-catalyzed imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH TG:

A concentrated thermosetting reactant in water that provides high levels of performance to cellulose containing fabrics with very low formaldehyde emission.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for most textile uses including apparel, home furnishings, and many industrial applications. PERMAFRESH TG provides these properties while producing and maintaining a very low level of formaldehyde liberation on the treated substrate.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Easily cured with magnesium based catalyst
- * Minimum effect on shade

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):

PERMAFRESH TGC:

Concentrated, self-catalyzed, low CH₂O reactant.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for most textile uses. PERMAFRESH TGC provides these properties while producing and maintaining a very low level of formaldehyde liberation on the treated substrate. PERMAFRESH TGC is self-catalyzed for ease of formulating.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Easily cured with magnesium based catalyst
- * Minimum effect on shade
- * Eliminates possibility of catalyst omission

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH ULC:

A self-catalyzed thermosetting reactant in water that provides high levels of performance to cellulose containing fabrics with very low formaldehyde emission.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for most textile uses. PERMAFRESH ULC provides these properties while producing and maintaining a very low level of formaldehyde liberation on the treated substrate. It is self-catalyzed for ease of handling.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Eliminates possibility of catalyst being omitted
- * Minimum effect on shade

Typical Properties:

Type: Modified self-catalyzed imidazolidinone

Appearance: Clear to straw colored liquid

SEQUA CHEMICALS, INC.: Resins/Reactants(Continued):**PERMAFRESH ULF:**

A thermosetting reactant in water that provides high levels of performance to cellulose containing fabrics with very low formaldehyde emission.

Shrinkage control, fabric smoothness, and color retention durable to many home or commercial launderings are very desirable properties for many textile uses including apparel, home furnishings, and many industrial applications. PERMAFRESH ULF provides these properties while producing and maintaining a very low level of formaldehyde liberation on the treated substrate.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to commercial launderings
- * Excellent dry scorch resistance
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Easily cured with magnesium cured catalyst
- * Minimum effect on shade

Typical Properties:

Type: Modified imidazolidinone

Appearance: Clear to straw colored liquid

PERMAFRESH ULK:

Precatalyzed, low formaldehyde knit finish

Shrinkage control and color retention durable to many home launderings are very desirable properties for most knit fabrics. PERMAFRESH ULK provides these properties while producing and maintaining a very low level of formaldehyde liberation on the treated substrate. PERMAFRESH ULK has a specially designed catalyst system that enables an increase in speed and/or reduction in temperature on the knit finishing equipment.

Advantages:

- * Extremely low formaldehyde levels on sensitized and cured fabrics
- * Chlorine resistant to home laundering
- * Excellent shrinkage control
- * Excellent fabric smoothness
- * Minimum effect on most shades
- * Fast curing
- * Self-catalyzed for ease of handling

Typical Properties:

Type: Modified self-catalyzed imidazolidinone

Appearance: Clear to straw colored liquid

SEQUA CHEMICALS, INC.: Softeners:

MYKON 85:

A cationic emulsion in water that provides a soft slick hand to most fibers and blends.

Providing a soft hand with a minimal effect on other properties is a very desirable feature, MYKON 85 provides this. MYKON 85 may be used alone or in conjunction with most finishing mixes including thermosetting resins. MYKON 85 can be applied by padding or exhaustion.

Advantages:

- * Excellent softening properties
- * Excellent napping lubricant
- * Reduces static build up on synthetic fabric
- * Effective sewing lubricant
- * Improves sewability and tear strength
- * Non-chlorine retentive

Typical Properties:

Type: Cationic softener

Appearance: Beige liquid emulsion

pH: 4.0

Density (at 25C): 8.3 lbs/gallon

Solubility: Disperses readily in warm water

MYKON 122:

A general purpose nonionic softener for cotton, rayon and blends of these cellulosic fabrics with polyester

MYKON 122 softener provides a soft, full hand to cellulosic containing fabrics. It has excellent resistance to scorching, does not affect lightfastness and has excellent compatibility with most finishes. MYKON 122 is an excellent lubricant for sanforizing applications.

Advantages:

- * Does not affect chlorine resistance
- * Excellent resistance to scorching
- * Improves sewability and tear strength of fabric
- * No affect on shade or lightfastness of dyes
- * Does not wet soil
- * Compatible with most finishes

Typical Properties:

Type: Nonionic fatty glyceride blend

Appearance: White liquid

pH: 7.0

Density at 25C: 8.3 lbs./gallons

Solubility: Easily disperses in water

SEQUA CHEMICALS, INC.: Softeners(Continued):**MYKON 164:**

A napping softener and lubricant for cellulosic and synthetic fabrics.

MYKON 164 emulsion is specially formulated to provide excellent napping lubricity to cotton and blends of cotton with polyester. It is very efficient on open end spun fabric. MYKON 164 lubricant is also a very effective softener and sewing aid.

Advantages:

- * Reduces number of passes needed on napping equipment
- * Very good whiteness retention
- * Minimal effect on dyed fabrics
- * Excellent sewing aid
- * Provides soft slick hand to fabric
- * Compatible with most thermosetting resins and catalysts

Typical Properties:

Type: Modified Quaternary

Appearance: White Emulsion

pH: 5.5

Density (lbs./gallon): 8.35

Solubility: readily disperses in water

MYKON 333:

Softener designed to provide a soft silky hand with reduced dye migration.

MYKON 333 softener greatly reduces the mottled appearance of cellulosic/polyester blended fabrics caused by the migration of dispersed dyestuffs during drying and curing. MYKON 333 emulsion gives a soft silky hand and can also be used in water repellent formulations. Finishes containing MYKON 333 emulsion have good resistance to water and solvent bleed.

Advantages:

- * Reduces migration of disperse dyestuffs
- * Improves sewability and tear strength of the fabric
- * Can be used in water repellent formulations
- * Improves resistance to water and solvent bleeding of colors

Typical Properties:

Type: Modified cationic polyolefin emulsion

Appearance: Tan emulsion

pH: 3.5

Density at 25C: 8.4 lbs./gallon

Solubility: Easily disperses in water

SEQUA CHEMICALS, INC.: Softeners(Continued):

MYKON EJ:

A polyethylene emulsion that improves sewing characteristics, tear strength, and abrasion resistance of textile fabrics.

MYKON EJ softener is very effective when used with permanent press resin finishes. It improves sewability and tear strength of cotton, rayon, and polyester/cellulosic blends without affecting chlorine resistance, lightfastness or scorch resistance of the finished fabric. MYKON EJ emulsion also softens the treated fabric.

Advantages:

- * Reduces needle cutting and needle burns during sewing
- * Improves tear strength and abrasion resistance
- * Does not affect lightfastness
- * Does not affect chlorine resistance
- * Compatible with most finishing chemicals

Typical Properties:

Type: Nonionic polyethylene

Appearance: Light to medium tan emulsion

pH: 8.5

Density at 25C: 8.3 lbs./gallon

Solubility: Easily dispenses in cold water

MYKON HD:

A novel high density polyethylene softener that greatly increases sewability of fabrics

MYKON HD emulsion provides excellent sewing properties while imparting a soft hand to treated fabrics--unlike the waxy hand of other high density polyethylene products. MYKON HD softener also improves tear strength and abrasion resistance of treated fabric.

Advantages:

- * Provides soft hand
- * Reduces or eliminates needle cutting
- * Excellent for use on white or pastel colored fabrics
- * Does not affect lightfastness properties of dyestuffs
- * Compatible with most finishing formulations

Typical Properties:

Type: Nonionic high density polyethylene

Appearance: White emulsion

pH: 8.0

Density at 25C: 8.3 lbs./gallons

Solubility: Easily disperses in water

SEQUA CHEMICALS, INC.: Softeners(Continued):**MYKON NCB:**

A cationic softener that reduces or eliminates dispersed color bleeding

MYKON NCB softener is formulated to reduce the bleeding of low energy disperse dyestuffs and also the color transfer often experienced on polyester/cotton fabrics dyed with these materials. MYKON NCB emulsion also helps to reduce the mottled appearance caused by migration of dispersed dyestuffs during drying and curing. MYKON NCB is also a very efficient softener providing a smooth silky hand to the treated fabric.

Advantages:

- * Reduces or eliminates bleeding of dispersed dyestuffs
- * Gives soft, silky hand
- * Compatible with water and oil repellent finishes
- * Suitable for pre and post cure processes

Typical Properties:

Type: Cationic softener

Appearance: Creamy tan emulsion

pH: 3.0

Density: 8.35 lbs./gallon

Solubility: Easily disperses in warm water

MYKON 122 Concentrate:

A concentrated base for preparing nonionic softeners, lubricants and napping assistants

MYKON 122 Concentrate is a 100% active solid product that readily disperses in hot water and forms a stable emulsion on cooling. The diluted product can be used by itself or in combination with polyethylene emulsions or cationic emulsions to manufacture softeners with excellent lubricating properties. Excellent napping aids can also be manufactured from these combination products.

Advantages:

- * Readily disperses in hot water to form stable emulsion
- * Nonionic softener made from the concentrate has:
 1. Excellent dry scorch resistance
 2. Excellent pad bath compatibility in resin finishes
 3. Excellent whiteness retention
 4. Improves tear strength and sewability of fabrics

Typical Properties:

Type: Fatty ester

Appearance: White waxy solid

pH: 7.2 (20% solution)

Solubility: Forms emulsion in hot water

SEQUA CHEMICALS, INC.: Softeners(Continued):

MYKON SEW:

An easily emulsifiable base wax for the preparation of softener/lubricant products

MYKON SEW can be readily made into a water based emulsion under atmospheric conditions. It does not require the use of a hot melt tank. The emulsified product provides excellent sewability and tear strength improvement to cellulosic fabrics.

Advantages:

- * Readily emulsifiable under atmospheric conditions
- * Does not require hot melt tank
- * Emulsions made from MYKON SEW improve tear strength, abrasion resistance and sewability of the fabric
- * Melt viscosity is low, allowing easy handling
- * Supplied in 50 pound net, easily strippable cartons

Typical Properties:

Type: Carboxylated polyethylene
Appearance: Light colored wax
Density: 0.974 g/cc
Acid Number: 40 mg KOH/g
Softening Point: 77C ASTM 62D
Viscosity: 25 cps @ 125C

WARCO BASE Q:

A concentrate for the manufacture of cationic softener emulsions

WARCO BASE Q wax when diluted to 5-15%, produces a cationic softener emulsion. Softeners made from WARCO BASE Q are non-chlorine retentive and have good resistance to discoloration. They can either be applied by padding or exhaustion to cellulosic and many synthetic fibers.

Advantages:

- * Low melting to form a stable emulsion
- * Softeners made from WARCO BASE Q wax provide the following:
 - Excellent softening and napping
 - Good sewability
 - Non chlorine retentive
 - Good dry scorch retentive
 - Exhausts readily on cotton or acrylic fibers

Typical Properties:

Type: Cationic softener base
Appearance: Light tan solid
Density: 0.934 g/cc
pH: 4.5 (10% emulsion)
Melting Point: 125F

SEQUA CHEMICALS, INC.: Specialty Products:**MYKON 39:**

Reduces frosting of permanent press blended fabrics
MYKON 39 emulsion has been formulated to reduce the frosting effect on resin treated fabrics, especially those used in post cure finishing. In low concentrations it also helps to reduce "dusting" of the resin treated fabric.

Advantages:

- * Improves frosting of cellulose containing fabrics
- * Reduces dusting and fibrillation
- * Improves fabric smoothness
- * Improves tear strength and sewability of the fabric
- * reduces pilling and crocking

Typical Properties:

Type: Modified nonionic acrylic emulsion
Appearance: White liquid emulsion
pH: 4.5
Density at 25C: 8.5 lbs./gallon
Solubility: Easily disperses in water

PRYM 49:

A stain release agent for post cure permanent press formulations

PRYM 49 is a very effective soil release agent by itself and works very well as an extender with fluorochemical stain release products. Although particularly suitable for post cure permanent press use, it is also effective in precure applications.

Advantages:

- * Minimizes amounts of fluorochemical soil release agent needed
- * Enhances durability of fluorochemical stain release finishes, especially to dirty oils
- * Compatible with most thermosetting resins and catalysts
- * Excellent running properties

Typical Properties:

Type: Acrylic solution
Appearance: Straw colored solution
pH: 7.1
Density: 8.3 lbs/gallon

SEQUA CHEMICALS, INC.: Specialty Products(Continued):

PRYM 119:

A durable stain release agent that provides a softer hand than comparable products

PRYM 119 is a unique acrylic stain release agent that gives excellent soil release properties while not giving the stiff initial feel usually associated with these type products. PRYM 119 also improves the wet soiling resistance of the finished fabrics and reduces the static build-up associated with polyester containing material.

Advantages:

- * Soft hand compared to most acrylic agents
- * Effective durable stain release properties
- * Inhibits soil redeposition during laundering
- * Compatible with many finishing agents

Typical Properties:

Type: Acrylic copolymer
Appearance: Milky white emulsion
pH: 2.5
Density: 8.3 lbs./gallon

PRYM 200:

A durable acrylic stain release agent

PRYM 200 is a very effective stain release agent for polyester/cellulosic and 100% cellulosic fabrics. PRYM 200 also inhibits wet-soiling and improves absorbency and antistatic properties of polyester containing fabrics.

Advantages:

- * Provides effective, durable stain release properties
- * Inhibits soil redeposition during laundering
- * Improves absorbency of fabric
- * Shows little or no dusting during packaging or cutting operations

Typical Properties:

Type: Acrylic copolymer
Appearance: Milky white emulsion
pH: 2.5
Density: 8.4 lbs./gallon
Solubility: Disperses readily in water

SEQUA CHEMICALS, INC.: Specialty Products(Continued):**WARCO 751:**

An antifoam for high temperature dyeing

WARCO 751 emulsion is a highly effective mineral oil type product designed to give foam control during high temperature jet dye cycles including cool-down and depressurization.

Advantages:

- * Does not contain silicone oils
- * Efficient at very low use levels
- * Compatible with most high temperature dye-bath additives
- * Excellent antifoam throughout dyeing cycle

Typical Properties:

Type: Self-emulsifiable hydrocarbon

Appearance: Translucent light straw colored liquid

pH: 4.5 (5% emulsion)

Density: 7.4 lbs/gallon

Solubility: Disperses in warm water

WARCO ENDUST:

Reduces "dusting" on polyester/cellulosic blends

WARCO ENDUST agent reduces or eliminates dusting on cellulosic/synthetic blends. WARCO ENDUST solution also helps to prevent lint build-up during printing with rotary screen machines. The antistatic properties of WARCO ENDUST agent are useful in reducing static and increasing garnetting speeds on polyester highloft machines.

Advantages:

- * Reduces "dusting" in inspection and cutting of fabric
- * No effect on fabric smoothness
- * Can be applied in top softening finishes
- * Does not yellow
- * Reduces static during processing

Typical Properties:

Type: Cationic salt

Appearance: Light straw colored liquid

pH: 7.1

Density: 8.6 lbs/gallon

Solubility: Miscible with cold water in all proportions

SEQUA CHEMICALS, INC.: Specialty Products(Continued):

WARCOFIX 808:

A resin type fixative for direct dyes

WARCOFIX 808 fixative reduces bleeding and staining of colors and improves washfastness of direct colors on cellulosic fibers. WARCOFIX 808 fixative can be applied in the finish mix or by exhaustion after the dyeing cycle.

Advantages:

- * Highly effective requiring very low application levels
- * Can be applied by padding or exhaustion
- * Liquid for easy handling
- * Compatible with other resins and finishing agents

Typical Properties:

Type: Resinous

Appearance: Clear liquid

pH: 5.0

Density: 10.1 lbs/gallon

Solubility: Miscible with water in all proportions

WARCOSET CHB:

Handbuilders for cellulosic and synthetic/cellulosic blends

WARCOSET CHB polymer does not contain formaldehyde. When used with low formaldehyde resins it does provide a resilient finish on rayon and polyester/rayon blends similar to that obtained with high formaldehyde resins. WARCOSET CHB solution is compatible with most commonly used finishing agents.

Advantages:

- * Does not contain formaldehyde
- * Water soluble for ease of handling
- * Non yellowing at elevated temperatures
- * Compatible with most finishing chemicals
- * Provides resilient hand on synthetic/cellulosic fabrics when used with thermosetting resins

Typical Properties:

Type: Copolymer solution

Appearance: Clear viscous liquid

pH: 2.5

Density: 9.1 lbs/gallon

Solubility: Miscible with water in all proportions

SEQUA CHEMICALS, INC.: Surfactants:**SULFANOLE 334:**

A highly concentrated nonionic biodegradable penetrant and detergent

SULFANOLE 334 surfactant is a nonionic biodegradable penetrant and detergent which does not rewet after drying. It may be used in acid or alkaline mediums with minimal effect on its wetting or detergent properties. It is very effective in the removal and suspension of waxes and polyvinyl alcohols during preparation.

Advantages:

- * Excellent stabilizing agent
- * Does not increase color transfer of dispersed dyes
- * Aids in prevention of pad roll build up of latexes
- * Very effective penetrant in water repellent baths without causing rewetting
- * Highly concentrated
- * Excellent in removing and suspending waxes in preparation

Typical Properties:

Type: Ethoxylated linear alcohol
Appearance: Clear to slightly hazy viscous liquid
pH: 7.2 (10% solution)
Density: 8.3 lbs/gallon
Solubility: Miscible in water

SULFANOLE 634:

A nonionic biodegradable wetting agent and detergent

SULFANOLE 634 surfactant is an excellent wetting agent. At low concentration it can be used in water repellent finishes without causing rewetting of the fabric after drying. SULFANOLE 634 can also be used to stabilize latex finishes and can be used in standard resin finishes.

SULFANOLE 634 detergent is also very effective in preparation for removal of waxes and polyvinyl alcohols.

Advantages:

- * Efficient wetting agent
- * Improves stability of fluorochemical and water repellent formulations
- * Minimizes pad roll build-up of polyvinyl acetate and acrylic emulsions
- * Does not promote color transfer of disperse dyes
- * Easily handled liquid
- * Excellent scour for fabrics sized with waxes

Typical Properties:

Type: Nonionic surfactant
Appearance: Clear liquid
pH: 7.1
Density: 8.4 lbs./gallon
Solubility: Miscible with cold water

SEQUA CHEMICALS, INC.: Surfactants:

SULFANOLE 8-1:

A concentrated antistatic agent for synthetic fibers
SULFANOLE 8-1 surfactant provides excellent antistatic properties when applied alone or in conjunction with many finishing agents. It also provides lubricity to the fibers and enhances the hand of the finished fabric.

Advantages:

- * Highly effective at low concentrations
- * Supplied as a 100% active product
- * Compatible with most finishing components
- * Provides lubricity to fibers

Typical Properties:

Type: Cationic quaternary
Appearance: Amber liquid
pH (5% emulsion): 7.1
Density: 9.0 lbs/gallon
Solubility: Soluble in water and alcohol

MYKON NRW-3:

A thermally degradable non-rewetting bath stabilizer and foaming agent.

MYKON NRW-3 surfactant is a non-rewetting emulsifying and wetting agent especially designed for use with water repellent finishes. It also helps to stabilize pad baths containing fluorochemicals and prevents build up on cans and clips of many finishes containing polymeric emulsions. MYKON NRW-3 surfactant is also an excellent foam generating agent for low wet pick up finishes and because of its thermodegradable characteristics reduces or eliminates bleeding of sensitive dyestuffs in foam finishing.

Advantages:

- * Excellent emulsifying and stabilizing agent
- * Does not affect water or oil repellency of fluorochemical finishes
- * Helps in eliminating pad roll build-up of water repellent finishes
- * Excellent foaming agent for low wet pick-up finishes
- * Aids in keeping finishing equipment clean

Typical Properties:

Type: Amine oxide
Appearance: Clear to straw colored liquid
pH: 8.4
Density: 8.3 lbs./gallon
Solubility: Readily dissolves in water

SEQUA CHEMICALS, INC.: Surfactants(Continued):**MYKON NRW-4:**

A nonionic biodegradable wetting agent and detergent.

MYKON NRW-4 surfactant is an excellent wetting agent. At low concentration it can be used in water repellent finishes without causing rewetting of the fabric after drying. MYKON NRW-4 surfactant can also be used to stabilize latex finishes and can be used in standard resin finishes.

Advantages:

- * Efficient wetting agent
- * Improves stability of fluorochemical and water repellent formulations
- * Minimizes pad roll build-up of polyvinyl acetate and acrylic emulsions
- * Does not promote color transfer of disperse dyes
- * Easily handled liquid

Typical Properties:

Type: Nonionic surfactant
Appearance: Clear liquid
pH: 7.5
Density: 8.4 lbs/gallon
Solubility: Miscible with cold water

SEQUAFOAM LC:

A foaming agent for water repellent and fluorochemical finishes

SEQUAFOAM LC surfactant is a blowing agent that can be used with fluorochemical and water repellent finishes. It is also very effective in the foam finishing of yarn striped fabric. SEQUAFOAM LC surfactant can also be used as a dyed stabilizer

Advantages:

- * Does not effect water or oil repellent properties
- * Does not promote dye migration in foam finishes
- * Produces a stable foam for low wet pick up finishing
- * Good emulsifying and stabilizing agent

Typical Properties:

Type: Non-rewetting surfactant
Appearance: Clear to straw colored liquid
pH: 8.3
Density: 8.3 lbs./gallon
Solubility: Readily dissolves in water

SEQUA CHEMICALS, INC.: Surfactants(Continued):

SEQUAWET 597:

A wetting and dispersing agent for water repellent and fluoro-chemical finishes

SEQUAWET 597 surfactant is a thermodegradable wetting and dispersing agent for use where bath stabilization and fabric penetration without detracting from water or oil repellent properties is needed. SEQUAWET 597 surfactant also aids in reducing or eliminating build-up on clips, cans and pad rolls during processing caused by bath additives such as polyvinyl acetate or acrylic emulsions.

Advantages:

- * Excellent bath stabilizer for most fluorochemical finishes
- * Does not affect water or oil repellent properties
- * Reduces or eliminates build up on clips and frames of polymeric finishes
- * Can be used as a foaming agent

Typical Properties:

Type: Thermodegradable penetrant

Appearance: Clear to straw colored liquid

pH: 8.2

Density: 8.3 lbs./gallon

Solubility: Readily dissolves in water

SEQUA CHEMICALS, INC.: Water Repellents/Release Agents:**IMPREGNOLE FH:**

A non-durable water repellent that can be used on all fibers and blends.

IMPREGNOLE FH emulsion provides very good water repellency on all fibers and blends. It may be applied in conjunction with most thermosetting resins, polyvinyl acetate and many starches while maintaining its high spray ratings.

Advantages:

- * Provides excellent initial spray on all fibers
- * Very good compatibility with many types of handbuilders
- * Requires no curing
- * Can be exhausted onto yarn or fabric
- * Compatible with most thermosetting resins

Typical Properties:

Type: Cationic zirconium synthetic wax complex

Appearance: White milky emulsion

pH: 3.8

Density: 8.3 lbs./gallon

Solubility: Easily disperses in water

IMPREGNOLE 133:

A fluorochemical extender for use on synthetic and cellulosic fabrics

IMPREGNOLE 133 repellent does not contain low melting waxes that cause dripback in frames. It is used mainly as an extender but can provide water repellency when used alone. IMPREGNOLE 133 repellent will cure onto cellulosic substrates providing a durable, non-migrating repellent material. Providing such an internal hydrophobic treatment for wood pulp, cotton and/or rayon is useful for sandpaper, medical fabrics and coated substrates.

Advantages:

- * Concentrated for low usage levels
- * Compatible with most thermosetting resins
- * Compatible with many thermoplastic resins
- * Excellent fluorochemical extender
- * Does not cause dripback in frames

Typical Properties:

Type: Hydrophobic thermosetting resin

Appearance: White fluid

pH: 6.5

Density: 8.2 lbs./gallon

Solubility: Disperses readily in water

**SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):**

NORANE 100:

Durable water repellent and fluorochemical extender

NORANE 100 repellent provides durable water repellent properties to cellulosic, cellulosic/synthetic blends, and synthetic fabrics. When used with fluorochemicals it reduces the required amount of fluorochemical needed for water repellent properties. NORANE 100 repellent also improves hand and sewing properties of fabrics while providing excellent water spray resistance.

Advantages:

- * Compatible with most resin finishes
- * Excellent fluorochemical extender
- * Improves sewability and tear strength
- * Disperses easily in warm water
- * Does not affect permanent press properties

Typical Properties:

Type: Hydrophobic thermosetting resin

Appearance: White liquid emulsion

pH: 4.0

Density at 25C: 8.3 lbs./gallon

NORANE 110:

A salt stable, 'impact' resistant repellent for medical nonwovens.

Fluorochemical products are expensive and have a tendency to provide a harsh hand on the treated fabric whether woven or nonwoven. NORANE 110 repellent reduces the amount of fluorochemical needed while at the same time softening the substrate, improving drape and sewability of the fabric. NORANE 110 repellent provides spray and impact penetration resistance. NORANE 110 repellent does not contribute odors to Co-60 sterilized medical fabrics.

Advantages:

- * Excellent extender for fluorochemicals in nonwoven applications
- * Stable to sodium chloride (for static control)
- * Improves drape and sewability
- * Very good running properties
- * Contains no toluene and is non smoking

Typical Properties:

Type: Hydrophobic, thermosetting resin

Appearance: White liquid emulsion

pH: 7.0

Density at 25C: 8.3 lbs./gallon

Solubility: Easily disperses in warm water

SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):

NORANE F:

A cationic fluorochemical extender that improves water repellency, hand, and running properties

NORANE F repellent is designed to work with nonionic and cationic fluorochemical emulsions to improve water repellency without detracting from the oil repellent nature of the fluorochemical. The use of NORANE F repellent reduces the amount of fluorochemical necessary to meet specifications. NORANE F repellent also provides a soft hand to most fibers and blends.

Advantages:

- * Allows for reduction in the amount of fluorochemical in formulation
- * Improves running properties of the fluorochemical mix
- * Provides soft hand to the fabric
- * Can be used in "Quarpel" finish
- * Can be used in post cure finishes

Typical Properties:

Type: Cationic polymer wax emulsion

pH: 2.5

Density at 25C: 8.35 lbs./gallon

Solubility: Easily disperses in warm water

NORANE SILICONE:

A durable silicone water repellent for all fibers and blends

NORANE SILICONE repellent is a very efficient water repellent that provides a smooth hand while at the same time improving tear strength, sewability, and abrasion resistance of the fabric. NORANE SILICONE repellent is compatible with most thermosetting resin systems.

Advantages:

- * Durable to washing and dry cleaning
- * Minimal affect on shade or lightfastness of most dyestuffs
- * Provides soft smooth hand
- * Improves tear strength and abrasion resistance
- * Compatible with most resin finishing formulas

Typical Properties:

Type: Silicone oil emulsion in water

Appearance: White liquid

Density: 8.5 lbs./gallon

Solubility: Readily disperses in water

SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):

NORANE SILICONE G:

An economical water repellent that provides a smooth soft hand to the fabric

NORANE SILICONE G repellent is an efficient water repellent that improves sewability and abrasion resistance while providing a smooth silky hand to the fabric. NORANE SILICONE G repellent is compatible with most thermosetting resins and catalysts.

Advantages:

- * Improves tear strength and abrasion resistance
- * Improves sewability
- * Provides soft silky hand
- * Durable to washes and dry cleanings
- * Minimal affect on dyestuffs

Typical Properties:

Type: Silicone oil emulsion in water

Appearance: Milky white liquid

pH: 4.5

Density: 8.4 lbs./gallon

Solubility: Readily disperses in water

SEQUAPEL ND:

A non-durable water repellent applicable to all fibers and blends.

SEQUAPEL ND provides excellent spray ratings--even when applied with high levels of handbuilders such as polyvinyl acetate, polyvinyl alcohols, or starch ether. SEQUAPEL ND can also be used with thermosetting resins.

Advantages:

- * Compatible with most thermosetting resins
- * Compatible with many thermoplastic resins
- * Provides excellent initial spray ratings on all fibers and blends
- * Readily disperses in cold water
- * Requires no curing

Typical Properties:

Appearance: white emulsion

Ionic Nature: cationic

pH: 3.5

Density (lbs./gallon) (at 25C): 8.3

Solubility in water: Dilutes readily in room temperature water

SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):

SEQUAPEL O & W:

An economical dual action extender that improves both oil and water repellent properties of fluorochemical finishes.

SEQUAPEL O & W repellent is a dual action extender that can be used alone or used to lower the cost of high priced fluorochemical finishes by improving both oil and water repellent properties. SEQUAPEL O & W repellent is prebalanced to provide both economical oil and water repellency.

Advantages:

- * Reduces cost of fluorochemical chemical mixes
- * Compatible with most resin and catalyst systems
- * Improves oil resistance of fabric
- * Dilutes readily with water
- * Cures readily using standard resin conditions

Typical Properties:

Appearance: white emulsion

Ionic Nature: cationic

pH: 3.5

Viscosity (at 25C): 50 cps

Density (lbs./gallon at 25C): 8.4

Solubility in water: Miscible in all proportions at room temperature

SEQUAPEL ULTRA:

A high efficiency, dual action water repellent that provides very high degrees of durable water repellency and oil resistance.

SEQUAPEL ULTRA repellent provides excellent water and oil resistant properties on both natural and synthetic fibers. The oil and water repellency are durable to many washes and dry cleanings. The product is recommended for apparel, home furnishings, and industrial applications. The oil and water repellent properties are already balanced for most fabric applications.

Advantages:

- * Provides excellent water repellency
- * Provides excellent stain resistance
- * Compatible with most resin and catalyst systems
- * Can be sprayed onto fabric
- * Very effective at relatively low concentrations
- * Dilutes readily with water
- * Cures readily with standard resin conditions

Typical Properties:

Appearance: white emulsion

Ionic Type: cationic

pH: 3.5

Viscosity (at 25C): 70 cps

Density (lbs./gallon at 25C): 8.4

Solubility in water: Miscible in all proportions

**SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):**

SEQUAPEL WOR:

A fluoropolymer emulsion in water and acetone for general purpose water and oil repellency on textiles including natural and synthetic fibers.

Resistance to water and oil borne stains is a highly desirable feature to many textile uses including outerwear, home furnishings and industrial fabrics. SEQUAPEL WOR provides excellent water and oil repellency that is durable to washing and dry cleaning.

Advantages:

- * Compatible with most commonly used extenders and resins
- * Dilutes readily with water to form a stable bath
- * Very effective at low add-on levels
- * Provides a high level of water repellency and stain resistance
- * Can be sprayed onto fabric
- * Cures under normal resin conditions

Typical Properties:

Appearance: opaque white liquid
Ionic Type: cationic
pH: 4.0
Viscosity (at 25C): 50.0
Density (lbs./gallon at 25C): 9.0
Solubility in water: Miscible in all proportions

SEQUAPEL WOR 46:

An economical fluoropolymer emulsion in water and acetone that provides water and oil repellency suitable for most textile end uses.

Water and oil resistance are very desirable properties for many uses including outerwear, home furnishings and industrial fabrics.

Advantages:

- * Compatible with most resins and extenders
- * Dilutes readily with water to form a stable bath
- * Provides a high level of water repellency and stain resistance
- * Can be sprayed onto fabric
- * Cures readily using standard resin conditions

Typical Properties:

Appearance: white dispersion
Ionic Type: cationic
pH: 4.0
Viscosity (at 25C): 100.0 cps
Density (lbs./gallon at 25C): 8.6
Solubility in water: Miscible in water at all proportions

**SEQUA CHEMICALS, INC.: Water Repellents/Release Agents
(Continued):**

SEQUAPEL WOR 145:

A fluoropolymer emulsion in water and acetone specifically modified to enhance abrasion resistance while still providing oil and water resistance.

For many uses (including upholstery and garments) improved abrasion resistance in addition to resistance to water and oil borne stains is a very desirable feature. SEQUAPEL WOR 145 repellent has been designed for these applications.

Advantages:

- * Provides improved abrasion resistance
- * Compatible with many resins and extenders
- * Provides resistance to water and oil borne stains
- * Dilutes readily in water
- * Cures readily using standard resin conditions

Typical Properties:

Appearance: Milky white liquid

pH: 4.0

Viscosity (at 25C): 50.0

Density (lbs./gallon at 25C): 8.6

Solubility in water: Miscible in all proportions at room temperature

SHELL CHEMICAL CO.: NEODOL Surfactants:

A Complete Line for Textile Applications

The complete line of NEODOL surfactants consists of some 15 individual products based on alcohols in the C9 to C15 range with distinctive performance characteristics which make them exceptionally effective in various textile applications. NEODOL surfactants can therefore be selected for specific high performance qualities in traditional textile applications such as lubrication, desizing, scouring, mercerization, printing and dyeing--as well as for the newer applications such as foam finishing and foam mercerization.

NEODOL Products:

Their Nomenclature and Properties

NEODOL ethoxylates are nonionic surfactants made from blends of linear primary alcohols with carbon numbers ranging from C9 to C15. The alcohol blends are reacted with ethylene oxide (EO) to produce NEODOL ethoxylates with average chain lengths ranging from 2.5 to 13. For example, NEODOL 25-3 designates a surfactant based on NEODOL 25 alcohol reacted with an average of 3 moles of ethylene oxide (EO).

NEODOL Ethoxylates:

91-2.5:

EO groups/alcohol, mole/mole, avg.: 2.5
Molecular weight: 282
Active Content, %w: 100
EO Content, %w: 41
Melting range, C: -16 to -2
F: 3-28
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.934
Viscosity, cSt at 100F: 12

91-6:

EO groups/alcohol, mole/mole, avg.: 6
Molecular weight: 425
Active Content, %w: 100
EO Content, %w: 62
Melting range, C: 6-9
F: 42-48
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.991
Viscosity, cSt at 100F: 23

SHELL CHEMICAL CO.: NEODOL Surfactants(Continued):

NEODOL Ethoxylates(Continued):

91-8:

EO groups/alcohol, mole/mole, avg.: 8.4
Molecular weight, calc ex OH No.: 529
Active content, %w: 100
EO Content, % w: 70
Melting range, C: 14-17
F: 57-63
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 1.002
Viscosity, cSt at 100F: 30

23-6.5:

EO groups/alcohol, mole/mole, avg.: 6.5
Molecular weight, calc ex OH No.: 484
Active content, %w: 100
EO content, %w: 60
Melting range, C: 11-15
F: 52-59
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.981
Viscosity, cSt at 100F: 29.5

25-3:

EO groups/alcohol, mole/mole, avg.: 3
Molecular weight, calc ex OH No.: 336
Active Content, % w: 100
EO content, %w: 40
Melting range, C: 5-6
F: 41-43
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.925
Viscosity, cSt at 100F: 19

25-7:

EO groups/alcohol, mole/mole, avg.: 7.1
Molecular weight, calc ex OH No.: 522
Active Content, %w: 100
EO content, %w: 60
Melting range, C: 18-20
F: 65-68
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.967
Viscosity, cSt at 100F: 34

SHELL CHEMICAL CO.: NEODOL Surfactants(Continued):

NEODOL Ethoxylates(Continued):

25-9:

EO groups/alcohol, mole/mole, avg.: 9.2
Molecular weight: 610
Active content, %w: 100
EO content, %w: 66
Melting range, C: 25-28
 77-82
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.982
Viscosity, cSt at 100F: 41

25-12:

EO groups/alcohol, mole/mole, avg.: 11.9
Molecular weight: 729
Active content, %w: 100
EO Content, %: 72
Melting range, C: 30-34
 F: 86-93
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.998
Viscosity, cSt at 100F: 53

45-7:

EO groups/alcohol, mole/mole, avg.: 7
Molecular weight: 524
Active content, %w: 100
EO content, %: 60
Melting range, C: 21-25
 F: 70-77
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 0.967
Viscosity, cSt at 100F: 35

45-13:

EO groups/alcohol, mole/mole, avg.: 13
Molecular weight: 790
Active content, %w: 100
EO content, %: 72
Melting range, C: 31-36
 F: 87-96
Color, APHA (Pt-Co): 10
Sp. gravity, 25/25C: 1.008
Viscosity, cSt at 100F: 58

SHEREX CHEMICAL CO., INC.: Textile Finishing Chemicals:**ADOGEN 432 Quaternary Ammonium Compound:****Liquid Concentrated Quaternary Ammonium Compound**

ADOGEN 432 quaternary is a 75-percent-solids, light-colored, low-viscosity liquid. At room temperature it is a clear to slightly hazy liquid and retains this appearance at low temperatures. Typical pour points range from 40F, allowing ease of handling, storage, pumping or dilution. ADOGEN 432 mixes rapidly in cold water to form stable dispersions over a broad range of activity. These properties make ADOGEN 432 ideal for use as a fabric softener and also as a cationic emulsifier, antistatic agent, textile dyeing aid and fiber lubricant. It makes an excellent softener and calender lubricant for paper. ADOGEN 432 should also be an outstanding flocculating agent.

Specifications:

Quaternary, (Mwt-521), wt%: 66-70
Free Amine & Amine Hydrochloride, %: 3 max
Color, Gardner ('63): 3 max
Ash, %: 0.5 max
Appearance, 25C: Clear to hazy liquid
pH (5% solids in 1:1 IPA/water): 6.9

Typical Properties:

Total Solids, wt%: 70
Pour Point, F: 40
Water Content, wt%: 10
Isopropanol, wt%: 20
Surface Tension dynes/cm: 29
pH (5% solids in 1:1 IPA/water): 6-9

AROSPERSE TA-101:

Commercial Laundry Softener
Cool Water Dispersible Powdered Cationic Fabric Softener

AROSURF TA-101 is a novel, new powdered fabric softener specifically designed to meet the need for cool water dispersibility common in today's commercial and institutional laundries.

Improved Dispersibility:

AROSURF TA-101 has been specifically formulated to be dispersible at 90F.

Formulating Information:

AROSURF TA-101 is particularly well suited for combination with low cost organic or inorganic extenders.

Application Rates:

The use levels for fabric softeners varies depending upon the desired effect. General softening is obtained at levels of 0.05-0.08%. For superior softening, use levels of 0.07-0.10% are needed.

SHEREX CHEMICAL CO., INC.: Textile Finishing Chemicals
(Continued):

VARISOFT 110:

Textile Softener Concentrate
Specialty Cationic Fabric Softener Concentrate

VARISOFT 110 concentrate is a specially produced, novel, cationic softener particularly suited for the textile industry. Supplied at 75% concentration, it is readily diluted and formulated by the textile chemical specialty house to become a base for a variety of custom softeners. VARISOFT 110 has been found to have superior qualities:

- * Metal-to-fiber lubrication
- * Non-yellowing
- * Scorch resistance
- * Flex abrasion
- * Stability in alkaline baths

Uses:

VARISOFT 110 finds application in resin baths where VARISOFT 110 often is modified with weakly polyethylene resins.

Specifications:

Form: White Wax
Color, Gardner 1933, max: 6
Concentration, (% Solids): 74-75
pH: (10%, as is in 1:1 IPA+water): 5.5-7

VARISOFT 222 LM-(90%):

An easy to handle cold water dispersible fabric softener concentrate

VARISOFT 222LM-(90%) is a more fluid and cold water dispersible version of VARISOFT 222-90%. It is designed to be used in the formulation of regular rinse, concentrated rinse, and high solids aqueous dispersions. Water at temperatures as low as 55F can be used to formulate these liquid rinse cycle fabric softeners. Its versatility simplifies inventory control of the base, yet offers much formulation flexibility.

Dispersal:

Low temperature fluidity makes VARISOFT 222LM-(90%) very easy and less costly to disperse than other fabric softener concentrates.

Performance:

VARISOFT 222LM-(90%) is a very effective fabric softener. The softening imparted to fabric is described as fluffy, dry and non-greasy. Fabrics treated with the softener have excellent water absorbency even after multiple laundry cycles. White fabrics treated with VARISOFT 222LM-(90%) show essentially no yellowing even after repeated washings. The non-yellowing properties of this product are considered the best available among the tallow based quaternary softeners in the marketplace.

SHEREX CHEMICAL CO., INC.: Textile Finishing Chemicals
(Continued):

VARISOFT 475:

Dialkyl Imidazoline Quaternary
Ditallow Imidazolinium Methosulfate

Description:

VARISOFT 475 is a 1-methyl-1-tallowamidoethyl-2-tallow-imidazolinium methosulfate quaternary particularly suited for formulating fabric softeners. It is a cationic compound, giving high softening efficiency and excellent antistatic properties because of its substantive nature. Treated fabrics are soft and fluffy and have good rewettability. VARISOFT 475 gives fabric a "hand" characteristic between that of VARISOFT 222 and ADOGEN 442. It reduces static cling and wrinkling while making ironing easier. Since it is liquid at 80F it is easier to handle than most other concentrates.

Specifications:

Form, 80F: Liquid
Color, Gardner 1936, Max: 5
pH (5% in 50:50 IPA/Water): 5-6.5
Solids, Weight %: 75-77
Flash Point, F: 70

Formulations:

VARISOFT 475-based softeners for household use can be made in a wide range of concentrations. This product is not recommended for concentration under 4 weight-percent solids unless suitable dispersion stabilizers have been included.

SOLEM INDUSTRIES: SOLEM Alumina Trihydrate:

H-36 Alumina Trihydrate:

H-36 is a coarse, mechanically ground alumina trihydrate used to suppress flame and smoke in latex, vinyl and urethane carpet-backing compounds.

Typical Chemical Analysis:

Al₂O₃: 64.9%
SiO₂: 0.005
Fe₂O₃: 0.007
Na₂O (total): 0.03
Na₂O (soluble): 0.02
Loss on ignition (1100): 34.6
Free Moisture (110C): 0.2

Physical Properties:

Median Particle Diameter (microns): 25
% less than 10 microns: 15-20
Bulk Density - loose (gm/cm³): 0.9
Bulk Density - packed (gm/cm³): 1.2
Specific Gravity (gm/cm³): 2.42
Surface Area (m²/gm): 2-3

H-46 Alumina Trihydrate:

H-46 is a mechanically ground alumina trihydrate used to suppress flame and smoke in latex, vinyl and urethane carpet-backing compounds.

Grades*:

H-46 - Standard

* Custom surface, treated grades are also available

Typical Chemical Analysis:

Al₂O₃: 64.9%
SiO₂: 0.01%
Fe₂O₃: 0.015
Na₂O (total): 0.35
Na₂O (soluble): 0.02
Loss on ignition (1100): 34.6
Free Moisture (110C): 0.2

Physical Properties:

Screen Analysis (Tyler Standard Screen):
% on 325 mesh: 5-10
% through 325 mesh: 90-95
Median Particle Diameter (microns): 14-16
% Less than 10 microns: 20-30
Bulk Density-loose (gm/cm³): 0.7-0.8
Bulk Density-packed (gm/cm³): 1.2
Specific Gravity (gm/cm³): 2.42
Surface Area (m²/gm): 2-3

SPARTAN FLAME RETARDANTS INC.: Flame Retardant Chemicals:**SPARTAN CM:**

Inorganic-Powder
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

SPARTAN X-12:

Inorganic-Powder
Non Wovens/Textiles/Cotton, Wool, Silk, Linen

SPARTAN AR 295:

Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

SPARTAN AR 355:

Inorganic Liquid
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

SPARTAN AR 371:

Inorganic Liquid
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

SPARTAN 5M:

Inorganic Powder
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

SPARTAN FF4-72:

Inorganic Liquid
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Bedding,
Mattress Cotton

SPARTAN 590FR:

Inorganic Liquid
Non Wovens/Textiles/Cotton, Wool, Silk, Linen

SPARTAN 742FR:

Organic - Inorganic Blend
Non Wovens/Textiles/Cotton, Wool, Silk, Linen/Synthetic
Textile Fibers

A.E. STALEY MFG. CO.: ETHYLEX Gums:

ETHYLEX Gums are derivatives of corn starch in which hydroxyethyl groups have been chemically substituted for a very small number of hydroxyl groups. By varying the degree of substitution, and otherwise controlling the manufacturing process, two distinct series of ETHYLEX Gums are produced--the 2000 and 3000 series. Substitution produces significant changes in the basic properties of the original starch, even though it appears unchanged physically.

Benefits:

The cooked pastes of ETHYLEX demonstrate excellent viscosity stability over prolonged periods of time and show little change in viscosity due to temperature fluctuations. Films produced from these pastes are clear, continuous and decidedly more flexible than those produced from other starch modifications. These characteristics, and others to be discussed later, strongly recommend the ETHYLEX Gums to widespread application in the paper, textile and adhesive industries.

Typical Analysis:

Color/Form: White pearl powder
Moisture: 12.0%
pH: 7.0

Description:

The ETHYLEX 2000 Series is not as highly derivatized as the 3000 Series. In both, the larger the product number, the thicker or higher the viscosity of the cooked paste. ETHYLEX 2095 and 3095 are derivatives of unmodified corn starch and exhibit essentially no thinning.

ETHYLEX GUMS:

2000 Series	3000 Series
2005	----
2015	----
2020	----
2025	----
2030	3030
2040	----
2065	----
2075	----
2095	3095

A. E. STALEY MFG. CO.: ETHYLEX Gums(Continued):**Properties:**

Compared to unmodified, or straight acid modified corn starches, ETHYLEX Gums present several advantages. Beyond the fact that they are dry, free-flowing powders and can be readily handled in bulk installations, the ETHYLEX Gums are easily dispersed in water at room temperatures for cooking and paste makeup. In application they offer these advantages:

- * Stable viscosities and reduced set back properties
- * Greater water retention
- * Dried films that are clear and flexible
- * Lower gelatinization temperatures
- * Good compatibility and reactivity

Of all the characteristics which distinguish the performance of the ETHYLEX Gums, the most important is viscosity stability. ETHYLEX Gums retain viscosity throughout the makeup, handling, and usage operations incidental to all typical sizing and coating procedures. Upon cooling, pastes of ETHYLEX show less of an increase in viscosity than do other starches, and develop virtually no gel or hard size. Further upon cooling, retrogradation to insoluble amylose is also virtually eliminated.

The ease with which the ETHYLEX Gums can be slurried and cooked is another important property. They gelatinize over a significantly shorter and lower temperature range than acid modified starches.

The ETHYLEX Gums show excellent compatibility with other hydrophilic film forming and adhesive materials.

Applications:**Textile Warp Size:**

For warp sizing applications, ETHYLEX Gums provide the manufacturer with stable, cooked paste viscosities and improved film forming capabilities. Two products in particular, ETHYLEX 2065 and ETHYLEX 2075, are used extensively for warp sizing polyester/cotton yarn blends; both gums typically applied in combination with polyvinyl alcohol (PVA) as the polyester content exceeds 50% of the blend. ETHYLEXES are fully compatible with PVA in various sizing operations, helping achieve high weaving efficiencies and in controlling costs.

ETHYLEX 2025 has been proven successful with the high pressure squeeze roll when higher solids are required to obtain higher size add-on.

Enzyme desizing is accomplished with greater ease on yarns sized with ETHYLEX than on yarns sized with most other textile starches.

Textile Finishing:

ETHYLEX Gums 2020 and 3030 have found wide acceptance in textile finishing formulas because of their stability, compatibility and reactivity with other materials.

A. E. STALEY MFG. CO.: HAMACO Starches:

HAMACO cold-water soluble corn starches are used as thickeners and binders for a variety of applications. They offer rapid and complete dispersion without lumping, and are extremely stable for long periods of storage.

Applications:

HAMACO Starches are useful in many applications requiring a water soluble thickener, a protective colloid, bodying agent or binder having the properties of rapid dispersability, specific viscosity and solution stability. The following is a list of recommended applications:

1. Emulsion polymerization (protective colloid)
2. Latex paints (thickener and film former)
3. Water based adhesives (resin extender, thickener)
4. Ceramics (glaze binder, body binder)
5. Oil well drilling muds (thickener, protective colloid, fluid loss additive)
6. Chemical specialties (thickener, binder)
7. Industrial specialties (thickener, binder)
8. Textile printing (thickener)
9. Finger paints (thickener)
10. Poster paints (thickener)
11. Ore flotation (depressant)
12. Reproduction papers (sizing agent)

Solution Properties:

Solutions made with HAMACO starches are non-gelling, exhibit stable viscosity and are slightly thixotropic.

Typical Chemical and Physical Properties:

HAMACO 267:

Moisture, %: 9.5
pH: 8.0
Color (Gardner): 14.0
Ash (dry substance basis), %: 1.0
Screen analysis: Thru U.S. No. 100, %: 98.5
Viscosity:
 After 10 mins., cps: 5000-6000
 After 1 hr., cps: 5500-6500

HAMACO 277:

Moisture, %: 9.5
pH: 8.0
Color (Gardner): 18.0
Ash (dry substance basis), %: 1.0
Screen analysis: Thru U.S. No. 100, %: 98.5
Viscosity:
 After 10 mins., cps: 700-1000
 After 1 hr., cps: 700-1000

A.E. STALEY MFG. CO.: STACLIPSE Dextrins for Textiles:

STACLIPSE Dextrins exhibit certain well defined qualities for various textile finishing operations.

Benefits:

As cook-up products, the STACLIPSE Dextrins can be prepared at high solids levels and still provide greater ease of handling than most textile starches. They furnish low-cost sizing for a range of hand characteristics--from full to crisp.

Properties:

In dry form, STACLIPSE Dextrins are white to off-white in color. When cooked, the prepared sizes are off-white to light buff in appearance and are quite clear until they cool, then becoming cloudy and somewhat opaque. They are compatible with softeners, fillers, plasticizers, latices and more expensive film formers that may be used in finishing mixtures. Film clarity is good for all of the STACLIPSE products, and becomes increasingly better for those having greater water solubilities, i.e. STACLIPSE I produces films of greatest clarity.

Applications:

STACLIPSE Dextrins are used in finishing denims, tickings, sheetings, and various other fabrics to give desired drape or hand to the grey goods. Often they are used with starches to build solids and increase the penetration of the size. They are also used in sizing specialty textiles such as netting or gauze to improve hand, and in felt to add body and strength. They have been used to back-size jute rug pads, adding strength and firmness.

Typical Analysis:**STACLIPSE 23:**

Gardner Color: 12
Moisture: 10%
pH: 5.5
% Water Solubility @ 77F: 5

STACLIPSE L:

Gardner Color: 14
Moisture: 10%
pH: 5.0
% Water Solubility @ 77F: 20

STACLIPSE J-UB:

Gardner Color: 14
Moisture: 10%
pH: 5.0
% Water Solubility @ 77F: 20

STACLIPSE I:

Gardner Color: 14
Moisture: 10%
pH: 3.8
% Water Solubility @ 77F: 38

A. E. STALEY MFG. CO.: STADEX Dextrins:

The STADEX Dextrins are a group of starch-based products which are used in a large number of industrial applications, and, to a more limited extent, in foods. They are versatile, economical, and can readily be enhanced or complimented with other ingredients or materials.

Benefits:

The most important properties of dextrins as compared to starch are:

- * Increased water solubility
- * Increased viscosity stability
- * Reduced paste viscosity
- * Increased color

Description:

STADEX Dextrins are partially hydrolyzed starches that are prepared by heating or dry roasting starch in the presence of an acid catalyst. The conversion process - the change from starch to dextrin - changes the properties of the parent starch in several ways. Notably, the dextrin exhibits a thinner cooked-paste viscosity, an increased cold water solubility, and a color change from white to off-white or yellow.

Properties:

Basic Properties:

Dextrins are basically similar in structure to the parent starches from which they are derived.

The structural changes that take place in the starch molecule during dextrinization are not well established. The hydrolysis of the long starch molecules into shorter "chain lengths" is understood however, and this change becomes evident when the dextrin is cooked in water. The viscosity of the dextrin paste will be thinner than that of the starch paste at the same solids level.

White Dextrins-Properties:

The product classification covering white dextrins includes a large number of products and a broad range of properties. It is generally marked by extremes of conversion from those that are only lightly converted to those that approach the very highly converted character of the canary dextrins.

In dry form white dextrins are white to off-white in appearance, and when compared to powdered starch, their dispersion time in water is greater. (Smooth suspensions can be developed in room temperature water if good agitation is used.)

When cooked, fresh pastes are light to dark buff in appearance, depending upon the degree of conversion. As the pastes cool to room temperature they turn opaque, becoming nearly white. Low conversion white dextrins have little viscosity stability, and when cooled, thicken or set-back to form soft gels. By contrast, high conversion white dextrins cook-up to form pastes that congeal less, are more fluid, and exhibit better viscosity stability.

A.E. STALEY MFG. CO.: STADEX Dextrins(Continued):**White Dextrin Typical Analysis:****Low Conversion:**

Form: Powdered
Gardner Color: 12
Cooked pH: 4.0
Ash: .1%
Water Solubility: 5-40%

Medium Conversion:

Form: Powdered
Gardner Color: 14
Cooked pH: 4.0
Ash: .1%
Water Solubility: 40-65%

High Conversion:

Form: Powdered
Gardner Color: 16
Cooked pH: 4.0
Ash: .1%
Water Solubility: 65-95+%

Typical and Average Values: Nonborated (Borated)**STADEX 9:**

Conversion: Low
Type: White
Solubility Range, %: 8-12
% Dextrin Solids (Dry Basis): 31 (27)
Brookfield Viscosity (cp): Fresh: 1550 (1650)
Brookfield Viscosity (cp): After 48 Hrs.: Gel. (2350)

STADEX 15:

Conversion: Low
Type: White
Solubility Range, %: 13-18
% Dextrin Solids (Dry Basis): 44 (35)
Brookfield Viscosity (cp): Fresh: 1850 (1650)
Brookfield Viscosity (cp): After 48 Hrs.: Gel. (2050)

STADEX 27:

Conversion: Low
Type: White
Solubility Range, %: 23-30
% Dextrin Solids (Dry Basis): 45 (38)
Brookfield Viscosity (cp): Fresh: 1850 (1800)
Brookfield Viscosity (cp): After 48 Hrs.: Gel. (2250)

A. E. STALEY MFG. CO.: STADEX Dextrins(Continued):

Typical and Average Values: Nonborated (Borated):

STADEX 60K:

Conversion: Medium
Type: White
Solubility Range, %: 59-71
% Dextrin Solids (Dry Basis): 51 (49)
Brookfield Viscosity (cp) @ 77F: Fresh: 2000 (1750)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (1850)

STADEX 62:

Conversion: Medium
Type: White
Solubility Range, %: 59-71
% Dextrin Solids (Dry Basis): 51 (49)
Brookfield Viscosity (cp) @ 77F: Fresh: 2000 (1750)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (1850)

STADEX 65:

Conversion: Medium
Type: White
Solubility Range, %: 65-75
% Dextrin Solids (Dry Basis): 50 (46)
Brookfield Viscosity (cp) @ 77F: Fresh: 1900 (1700)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (1750)

STADEX 67:

Conversion: Medium
Type: White
Solubility Range, %: 45-55
% Dextrin Solids (Dry Basis): 48 (41)
Brookfield Viscosity (cp) @ 77F: Fresh: 1800 (1750)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (2200)

STADEX 77:

Conversion: High
Type: White
Solubility Range, %: 70-80
% Dextrin Solids (Dry Basis): 51 (42)
Brookfield Viscosity (cp) @ 77F: Fresh: 1650 (1800)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (2100)

STADEX 79:

Conversion: High
Type: White
Solubility Range, %: 75-85
% Dextrin Solids (Dry Basis): 53 (47)
Brookfield Viscosity (cp) @ 77F: Fresh: 1850 (1850)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (2050)

A.E. STALEY MFG. CO.: STADEX Dextrins(Continued):**Typical and Average Values: Nonborated (Borated):****STADEX 82:**

Conversion: High
Type: White
Solubility Range, %: 70-80
% Dextrin Solids (Dry Basis): 52 (45)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1800)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: Gel. (2150)

STADEX 90:

Conversion: High
Type: White
Solubility Range, %: 86-92
% Dextrin Solids (Dry Basis): 56 (50)
Brookfield Viscosity (cp) @ 77F: Fresh: 1700 (1750)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 5850 (1700)

STADEX 92:

Conversion: High
Type: White
Solubility Range, %: 88-94
% Dextrin Solids (Dry Basis): 57 (53)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1800)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 7300 (2050)

STADEX 94:

Conversion: High
Type: White
Solubility Range, %: 92-98
% Dextrin Solids (Dry Basis): 57 (53)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1800)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 7300 (2050)

STADEX 123:

Conversion: Standard
Type: Canary
Solubility Range, %: 90-98
% Dextrin Solids (Dry Basis): 50 (40)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1700)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 5400 (1900)

A. E. STALEY MFG. CO.: STADEX Dextrins(Continued):

Typical and Average Values: Nonborated (Borated):

STADEX 124:

Conversion: Standard
Type: Canary
Solubility Range, %: 94-98

STADEX 126:

Conversion: Standard
Type: Canary
Solubility Range, %: 94-99
% Dextrin Solids (Dry Basis): 58 (48)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1550)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 2100 (1750)

STADEX 128:

Conversion: Standard
Type: Canary
Solubility Range, %: 97-100
% Dextrin Solids (Dry Basis): 59 (49)
Brookfield Viscosity (cp) @ 77F: Fresh: 1800 (1900)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 2200 (1900)

STADEX 132:

Conversion: Standard
Type: Canary
Solubility Range, %: 94-99
% Dextrin Solids (Dry Basis): 58 (48)
Brookfield Viscosity (cp) @ 77F: Fresh: 1750 (1550)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 2100 (1750)

STADEX 140:

Conversion: Special
Type: Canary
Solubility Range, %: 75-90
% Dextrin Solids (Dry Basis): 47 (34)
Brookfield Viscosity (cp) @ 77F: Fresh: 1850 (1850)
Brookfield Viscosity (cp) @ 77F: After 48 Hrs.: 4600 (2400)

Applications of White Dextrins: Textiles:

In textile finishing, white dextrins are used as sizing or weighting agents to produce desired hand. They also aid in stabilizing reduced vat dye solutions to give proper color to dyestuffs, and may be used with print thickeners for screen and roller printing to improve print quality. In plisse printing, certain white dextrins act as thickeners in the caustic soda solutions used. Cord polishing formulas often employ dextrins to lay fibers and improve feel, while the sizing of fiber glass is accomplished with a minimum of migration. In this application, dextrin allows clean burn off.

A.E. STALEY MFG. CO., INC.: STALEY Starches:**STALEY Pearl Starch:**

This general purpose, unmodified corn starch is basic to a large number of food and industrial applications. It is most used in neutral pH systems in which the properties of a low cost, thick boiling, high gel starch are advantageous.

Typical Data:

Color/Form: Fine, white granule
Bulk Density, lbs./cu. ft.: 40
Moisture: 12%
Protein: 0.35%
Ash: 0.1%
pH: 5.5
Brabender Data (6% Solids)-(700 CMG-75 RPM):
Peak Viscosity: 250-280 B.U.
92.5C - 15 min.: 230-250 B.U.
Gelatinization Temperature: 81C - 83C

STALEY 7181 Starch:

STALEY 7181 is a thick boiling, modified corn starch which economically replaces unmodified corn starch in a large number of paper, textile, adhesive, and building material products. Its high viscosity, versatility, and relatively high cost effectiveness make it an excellent replacement in these applications.

Typical Data:

Color/Form: Fine, off-white granule
Bulk Density, lbs./cu.ft.: 40
Moisture: 12%
pH: 6.2
protein: 0.45% max.
Ash: 0.3% max.
Brabender Viscosity (6% D.S. Starch): 300-390 B.U.

Applications:

Building Materials
Textile Finishing:

STALEY 7181 is an effective binding agent for talcs and clays. It is widely used in back filling and pure finishes.

Adhesives
Briquetting

STALEY 7350 Waxy No. 1 Starch:

This thick-boiling waxy starch is suitable for food and industrial applications.

It exhibits greater thickening power and a lower gelatinization temperature than regular, unmodified corn starch (PFP). Paste clarity and stability are also better.

A.E. STALEY MFG. CO.: STARAMIC Starches:

STARAMIC Starches are pregelatinized, cold water soluble starches that fill a number of application needs in various industries--in ceramics, paper and textiles, in building materials, paints and molded pulp products.

Within the three STARAMIC "families" 300, 600, and 700--a broad, controlled range of viscosities, particle sizes, and cold water solubilities are available. Individually, each starch exhibits outstanding film-forming characteristics and exceptional adhesive qualities.

Typical Data:

STARAMIC 329:

Type: Anionic
Moisture, %: 10
Cold Water Solubility (% Soluble): 65
Gardner Color: 15
Bulk Density, (lbs./cu. ft.): 40
Brookfield Viscosity, cps @ 10% solids: 28
Adhesive Strength: Good
Screen Analysis: on U.S. No. 60., %: 0.5

STARAMIC 330:

Type: Anionic
Moisture, %: 10
Cold Water Solubility (% Soluble): 90
Gardner Color: 20
Bulk Density, (lbs./cu. ft.): 35
Brookfield Viscosity, cps @ 10% solids: 14
Adhesive Strength: Excellent
Screen Analysis: on U.S. No. 60, %: 0.5

STARAMIC 620:

Type: Nonionic
Moisture, %: 10
Cold Water Solubility (% Soluble): 85
Gardner Color: 15
Bulk Density, (lbs./cu.ft.): 35
Brookfield Viscosity, cps @ 10% solids: 37
Adhesive Strength: Excellent
Screen Analysis: on U.S. No. 60, %: 0.5

STARAMIC 747:

Type: Nonionic
Moisture, %: 7
Cold Water Solubility (% Soluble): 100
Gardner Color: 12
Bulk Density, (lbs./cu.ft.): 20
Brookfield Viscosity, cps @ 10% solids: 65
Adhesive Strength: Excellent
Screen Analysis: On U.S. No. 60, %: 0.5

STEPAN CO.: Products for the Textile Industry:**Lubricants:****Polyol Esters:****KESSCO 874 (pentaerythritol tetracaprylate/caprate):****KESSCO 887 (trimethylpropane tricaprylate/caprate):****Advantages:**

- * Smoke points >300F
- * Flash points >500F
- * Mid-range Required HLB Values
- * Oil soluble
- * Low iodine Value & Acid Value
- * Reduce or eliminate vapor cloud problems
- * Easily emulsified and removed from fiber during washing step
- * Stable to oxidative/high temperature environments

Potential Application:

High temperature fiber processing

Materials Data:**KESSCO 874:**

Acid Value: 1 max.

Iodine Value: 1 max.

APHA Color: 100 max.

Viscosity: cSt @ 25C: 52-62

SUS @ 100F: 130-180

Req'd HLB Value: 12

Flash Point (F): 500

Smoke Point (F): 380

KESSCO 887:

Acid Value: 2 max.

Iodine Value: 1 max.

APHA Color: 100 max.

Viscosity: cSt @ 25C: 33-39

SUS @ 100F: 98-106

Req'd HLB Value: 6

Flash Point (F): 500

Smoke Point (F): 300

STEPAN CO.: Products for the Textile Industry(Continued):

KESSCO Alcohol Esters:

Names:

- Butyl stearate
- Isobutyl stearate
- Isopropyl palmitate
- Isopropyl myristate
- Octyl palmitate

Advantages:

- * Mid-range required HLB values
- * Oil soluble
- * Low iodine value
- * Extremely good color
- * Easily emulsified and removed from fiber during washing step.
- * Stable to moderately high temperature environments
- * Minimize staining

Potential Application:

Commonly used textile lubricants to reduce fiber/metal and fiber/fiber friction.

Materials Data:

Butyl Stearate:

- Viscosity: cSt @ 25C: 7
- SUS @ 100F: 48
- Required HLB Value: 8
- Smoke Point (F): 200

Isobutyl stearate:

- Viscosity: cSt @ 25C: 7
- SUS @ 100F: 50
- Required HLB Value: 8
- Smoke Point (F): 210

Isopropyl palmitate:

- Viscosity: cSt @ 25C: 5
- SUS @ 100F: 44
- Required HLB Value: 8
- Smoke Point (F): 170

Isopropyl myristate:

- Viscosity: cSt @ 25C: 4
- SUS @ 100F: 40
- Required HLB Value: 6
- Smoke Point (F): 155

Octyl palmitate:

- Viscosity: cSt @ 25C: 8
- SUS @ 100F: 52
- Required HLB Value: 9
- Smoke Point (F): 215

STEPAN CO.: Products for the Textile Industry(Continued):**Softener/Anti-Stat:****STEPAN CATIONIC 10:****Advantages:**

- * Light color
- * Unique cationic structure
- * Low odor
- * Low pour point
- * Will not yellow fibers
- * Less absorbency reduction than leading competitive cationics
- * Eliminate static cling and dust pick-up
- * Impart nongreasy afterfeel to fabric
- * Eliminate dye bleeding
- * Faster uptake than leading competitors' cationics
- * Inhibit corrosion to processing equipment
- * Little or no odor in formulations
- * Flowable at near room temperature

Potential Application:

Incorporate into finishes to provide effective rewetting, softening, and static control.

Materials Data:**CATIONIC 10:**

Gardner Color @ 40C: 3 max.
Solids %: 83-87
Anionic Response %: 65 min.
Flash Point (F): 80-85
pH: 2.5-3.5
Pour Point (C): 24

Sizing Agent:

STEPANHOLD R-1: (terpolymer of vinyl pyrrolidone, ethyl methacrylate, and methacrylic acid)

Advantages:

- * Low hygroscopicity
- * Light colored liquid
- * Complete range of water solubility
- * Effective in high humidity environments
- * Will not color fabrics
- * High degree of formulation flexibility

Potential Application:

1. Impart abrasion resistance to fibers
2. Add stiffness, body, texture, sheen, and crease resistance to wash and wear fabrics.

STEPANHOLD R-1:

Acid Value: 60-65
Gardner Color: 2 max.
Solids %: 50-52

STEPAN CO.: Products for the Textile Industry(Continued):

Emulsifiers:

KESSCO Nonionic PEG Esters (Polyethylene glycol esters):

Names:

PEG laurate:
PEG dilaurate:
PEG oleate:
PEG dioleate:
PEG stearate:
PEG distearate:

Advantages:

- * HLB values from 4.8 to 19.3
- * Three fatty acid types
- * Average molecular weight of PEG groups ranging from 200-6000
- * Manufactured via fatty acid/PEG condensation
- * Cover entire range of oil/water solubility
- * Can be blended to achieve most stable lubricant emulsion
- * Consistent, high quality
- * Reproducible emulsification properties

Potential Applications:

Remove lubricating oils and waxes from spun fibers

Materials Data:

PEG 200 Monoester:

Acid Value: 5.0 max.
Melting Point (C): -15-31
HLB Value: 8.1-9.3
Moles Ethoxylate: 4

PEG 200 Diester:

Acid Value: 10.0 max.
Melting Point (C): -15-9
HLB Value: 4.8-5.9
Moles Ethoxylate: 4

PEG 300 Monoester:

Acid Value: 5.0 max.
Melting Point (C): -5-28
HLB Value: 10.2-11.4
Moles Ethoxylate: 6

PEG 400 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 10-32
HLB Value: 11.6-13.0
Moles Ethoxylate: 8

STEPAN CO.: Products for the Textile Industry(Continued):

KESSCO Nonionic PEG Esters(Polyethylene glycol esters):

PEG 400 Diester:

Acid Value: 10.0 max.
Melting Point (C): 7-36
HLB Value: 8.3-9.7
Moles Ethoxylate: 8

PEG 600 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 23-37
HLB Value: 13.5-14.6
Moles Ethoxylate: 12

PEG 600 Diester:

Acid Value: 10.0 max.
Melting Point (C): 19-39
HLB Value: 10.6-11.7
Moles Ethoxylate: 12

PEG 1000 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 39-44
HLB Value: 15.7-16.6
Moles Ethoxylate: 20

PEG 1540 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 43-49
HLB Value: 16.9-17.5
Moles Ethoxylate: 32

PEG 1540 Diester:

Acid Value: 10.0 max.
Melting Point (C): 42-47
HLB Value: 14.6-15.8
Moles Ethoxylate: 32

PEG 4000 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 55-56
HLB Value: 18.7-19.0
Moles Ethoxylate: 75

PEG 4000 Diester:

Acid Value: 5.0 max.
Melting Point (C): 49-52
HLB Value: 17.6-18.1
Moles Ethoxylate: 75

PEG 6000 Monoester:

Acid Value: 5.0 max.
Melting Point (C): 58-62
HLB Value: 19.1-19.3
Moles Ethoxylate: 150

PEG 6000 Diester:

Acid Value: 9.0 max.
Melting Point (C): 54-58
HLB Value: 18.4-18.7
Moles Ethoxylate: 150

STEPAN CO.: Products for the Textile Industry(Continued):

Emulsifiers(Continued):

KESSCO Glycerol Esters:

Names:

Glycerol monostearate
Glycerol monooleate

Advantages:

- * Low HLB
- * Some lubricating properties
- * Expand range of stable lubricant formulations when used with PEG esters

Potential Application:

Common emulsifiers for standard lubricating oils

Materials Data:

Glycerol monostearate:

Acid Value: 3.0 max.
Iodine Value: 0.5 max.
Melting Point (C): 56.5-58.5
HLB Value: 3.8

Glycerol monooleate:

Acid Value: 3.0 max.
Iodine Value: 78 max.
Melting Point (C): 20
HLB Value: 3.8

Nonionic Nonyl Phenol Polyethoxylates:

Names:

MAKON 4 (nonoxynol 4):
MAKON 6 (nonoxynol 6):
MAKON 8 (nonoxynol 8):
MAKON 10 (nonoxynol 10):
MAKON 12 (nonoxynol 12):
MAKON 14 (nonoxynol 14):
MAKON 30 (nonoxynol 30):

Advantages:

- * Stable to hydrolysis in acid and alkali
- * Wide range of HLB values
- * Range from oil to water soluble

Potential Application:

Emulsify standard lubricants

STEPAN CO.: Products for the Textile Industry(Continued):**Emulsifiers:****Nonionic Nonyl Phenol Polyethoxylates(Continued):****MAKON 4:**

APHA Color: 100 max.
HLB Values: 9
Pour Point (C): -20
Moles of EO: 4

MAKON 6:

APHA Color: 100 max.
HLB Values: 11
Pour Point (C): -29
Moles of EO: 6

MAKON 8:

APHA Color: 100 max.
HLB Values: 12
Pour Point (C): -5
Moles of EO: 8

MAKON 10:

APHA Color: 100 max.
HLB Values: 13
Pour Point (C): 3
Moles of EO: 10

MAKON 12:

APHA Color: 100 max.
HLB Values: 14
Pour Point (C): 12
Moles of EO: 12

MAKON 14:

APHA Color: 100 max.
HLB Values: 15
Pour Point (C): 19
Moles of EO: 14

MAKON 30:

APHA Color: 100 max.
HLB Values: 17
Pour Point (C): 40
Moles of EO: 30

STEPAN CO.: Products for the Textile Industry(Continued):

Scouring/Wetting Agents:

Nonionics:

Names:

MAKON (nonylphenol polyethoxylates):
MAKON NF (aliphatic polypropoxylates):
BIO SOFT EA (linear primary alcohol alkoxyates):

Advantages:

- * Low foaming
- * Range of oil and water solubilities
- * Will not complex with metal ions
- * Reduce scouring time
- * Range of scouring/wetting applications
- * Eliminate soap scumming or hard water precipitates
- * Stable in aqueous acid/alkali

Potential Application:

1. Scouring/wetting processes using nonionic surfactants.
2. MAKON NF series is completely nonfoaming at temperatures above 25C.

Materials Data:

MAKON 4:

Color: APHA: 100 max.
Pour Point (C): -20
Active %: 100
Moles Ethoxylate: 4
Moles Propoxylate: NA

MAKON 6:

Color: APHA: 100 max.
Pour Point (C): -29
Active %: 100
Moles Ethoxylate: 6
Moles Propoxylate: NA

MAKON 8:

Color: APHA: 100 max.
Pour Point (C): -5
Active %: 100
Moles Ethoxylate: 8
Moles Propoxylate: NA

MAKON 10:

Color: APHA: 100 max.
Pour Point (C): 3
Active %: 100
Moles Ethoxylate: 10
Moles Propoxylate: NA

STEPAN CO.: Products for the Textile Industry(Continued):

Scouring/Wetting Agents(Continued):

Nonionics(Continued):

MAKON 12:

Color: APHA: 100 max.
Pour Point (C): 12
Active %: 100
Moles Ethoxylate: 12
Moles Propoxylate: NA

MAKON 14:

Color: APHA: 100 max.
Pour Point (C): 19
Active %: 100
Moles Ethoxylate: 14
Moles Propoxylate: NA

MAKON 30:

Color: APHA: 100 max.
Pour Point (C): 40
Active %: 100
Moles Ethoxylate: 30
Moles Propoxylate: NA

MAKON NF-5:

Color: Gardner: 3 max.
Pour Point (C): 4
Active %: 97
Moles Ethoxylate: NA
Moles Propoxylate: 5

MAKON NF-12:

Color: Gardner: 3 max.
Pour Point (C): -9
Active %: 100
Moles Ethoxylate: NA
Moles Propoxylate: 12

BIO SOFT EA-8:

Color: Gardner: 1 max.
Pour Point (C): 5
Active %: 100
Moles Ethoxylate: 8
Moles Propoxylate: 5

BIO SOFT EA-10:

Color: Gardner: 2 max.
Pour Point (C): 7
Active %: 100
Moles Ethoxylate: 10
Moles Propoxylate: 5

STEPAN CO.: Products for the Textile Industry(Continued):

Scouring/Wetting Agents(Continued):

Anionics:

Names:

BIO SOFT D (sodium dodecylbenzene sulfonates):
BIO TERGE AS-40 (sodium alpha-olefin sulfonate):
NACCONOL (sodium dodecylbenzene sulfonates):
STEPANOL (fatty alcohol sulfates):

Advantages:

- * Anionic
- * Improve penetration of textile additives into the fiber

Potential Application:

Scouring/wetting applications involving anionic surfactants

Materials Data:

BIO SOFT D-35X:
Color: Klett: 40 max.
% Active: 35
BIO SOFT D-40:
Color: Klett: 40 max.
% Active: 40
BIO SOFT D-62:
Color: Klett: 40 max.
% Active: 60
BIOTERGE AS-40:
Color: Klett: 150 max (5%)
% Active: 40
NACCONOL 35SL:
Color: Klett: 90 max.
% Active: 35
NACCONOL 90:
Color: Klett: 90 max.
% Active: 90
NACCONOL 40:
Color: Klett: 90 max.
% Active: 40
STEPANOL WAC:
Color: APHA: 175 max.
% Active: 28-30
STEPANOL WAQ:
Color: APHA: 175 max.
% Active: 28-30
STEPANOL WA-100:
Color: APHA: 40 max.
% Active: 97

STEPAN CO.: Products for the Textile Industry(Continued):**Emulsion Polymerization:****Latex Surfactants:****Names:**

POLYSTEP B (alkyl sulfates and alkylphenyl ether sulfates):

POLYSTEP A (linear/branched alkyl benzene sulfonates, or
alpha olefin sulfonates):

Advantages:

- * Differing alkyl chain length
- * Different degrees of ethoxylation
- * Control particle size and foaming
- * Achieve desired water resistance and freeze/thaw characteristics

Potential Application:

1. POLYSTEP B surfactants are used in styrene and acrylic polymerization.
2. Components in frothing agents.
3. POLYSTEP A surfactants have been used in SBR and other styrene copolymer latexes.
4. Ether sulfates are used when water soluble monomers (e.g. N-methylolacrylamide, or acrylic acid) are incorporated in polymer. They have been used in vinyl acetate and acrylic copolymerization schemes.

Materials Data:**POLYSTEP B-29:**

Organic Base: Fatty Alcohol
% Active: 32.0-33.0

POLYSTEP B-25:

Organic Base: Fatty Alcohol
% Active: 37.0-39.2

POLYSTEP B-5:

Organic Base: Fatty Alcohol
% Active: 28.0-32.0

POLYSTEP B-24:

Organic Base: Fatty Alcohol
% Active: 29.0-30.0

STEPAN CO.: Products for the Textile Industry(Continued):

Emulsion Polymerization(Continued):

Latex Surfactants(Continued):

Materials Data:

POLYSTEP B-26:

Organic Base: Fatty Alcohol
% Active: 23.5-25.0

POLYSTEP B-27:

Organic Base: Nonylphenol
Moles EO: 4
% Active: 29.0-31.0

POLYSTEP B-12:

Organic Base: Lauryl Alcohol
Moles EO: 4
% Active: 58.5-60.5

POLYSTEP B-23:

Organic Base: Lauryl Alcohol
Moles EO: 12
% Active: 56.0 min.

POLYSTEP B-19:

Organic Base: Lauryl Alcohol
Moles EO: 30
% Active: 26.0-27.0

POLYSTEP A-4:

Organic Base: Linear Alkyl Benzene
% Active: 49.5-51.0

POLYSTEP A-16:

Organic Base: Branched Alkyl Benzene
% Active: 29.0-31.0

POLYSTEP A-18:

Organic Base: Alpha Olefin
% Active: 38.0-40.0

STEPAN CO.: Products for The Textile Industry(Continued):**Additional Products:****STEPANTEX 6530B:****Dialkylammonium Methosulfate**

STEPANTEX 6530B is a cationic surfactant of quaternary ammonium salt type, having properties which are especially well adapted to the formulation of fabric softeners. STEPANTEX 6530B has been developed for making household fabric softeners with average or high active concentrations.

Properties:

STEPANTEX 6530B will give household fabric softeners essential properties: pleasant to the touch, wool-like bulk elasticity, good lubricating effect, excellent rewetting, antistatic property, easy drying and ironing.

STEPANTEX 6530B will not cause textile yellowing or affect their hydrophilic properties. It will easily eliminate between each washing.

The softening, lubricating and antistatic properties of STEPANTEX 6530B are also good assets for making textile auxiliaries.

Characteristics:

Physical appearance at 20C: off-white paste

Physical appearance at 40C: liquid

Solids: 90%+-1%

Isopropyl alcohol: 10%+-1%

Cloud point: 46C

Pour point: 35C

STEPANTEX 6530B is more than 80% biodegradable and is non-toxic orally.

STEPANQUAT F:**Quaternary Ammonium Salts**

STEPANQUAT F is a quaternary ammonium salt, cationic additive used as a dispersing and fluidizing agent in the formulation of household concentrated fabric softeners.

This product is an excellent anti-stat and fluidizer for softener dispersions at very low levels (1%).

Properties:

STEPANQUAT F is an excellent dispersing agent. Small quantities of it are sufficient for fluidizing and stabilizing concentrated dispersions with 15 to 30% STEPANTEX in water (STEPANTEX 6530B). The performance of such formulations will be improved due to its cationic characteristics.

Physical Characteristics:

Appearance at 20C (68F): yellow, clear liquid

Viscosity at 20C (68F): approximately 90 cps

Density at 20C (68F): 1.30+-0.01

Freezing Point: <-18C (-0.4F)

Solubility in water: soluble in all proportions

Chemical Characteristics:

Solids: 85%+-1

STEPAN CO.: Products for The Textile Industry(Continued):

Additional Products (Continued):

STEPANLUBE B-65:

100% active

Lower cost. Replacement for Butyl Stearate/Isobutyl Stearate

STEPANTEX N-8:

40% active anionic dye leveler.

STEPANTEX FA-40:

37% active.

Inexpensive. Frothing aid for carpet industry.

(May want to blend with Ether Sulfate and/or Amides)

STEPANTEX 130:

43% active concentrate.

Scouring agent (Anionic/Nonionic Blend)

Can be premixed at 10-15 g/l "as is" product in 100-200 g/l solid NaOH. End use dilution to 2.5 g/l "as is" product.

In 50 g/l solid caustic yields a product that has very good detergency, low foam, and a wetting time (via Draves Cotton Skew Test) of agent 10-13 seconds.

KESSCO 891:

Alkoxylated Monoester

100% active.

Water dispersible lubricant/emulsifier

KESSCO 894:

Alkoxylated Diester

100% active.

Water dispersible lubricant/emulsifier

STOCKHAUSEN: Textile Auxiliaries:**Product Name:****ANTISPUMIN DJ:**

Defoamer, free of silicone, for all types of textile processing.

ANTISPUMIN K6161:

Aqueous emulsion defoamer containing silicones for textile dyeing and finishing.

ANTISPUMIN 189:

Silicone free defoamer, effective in wide pH range, pH 2 - pH 12.

ESTARFIN GW:

Metallic salt and paraffin wax emulsion with antimicrobial additives. Special water-repellent agent for glass fiber fabrics. Used in combination with SARPIFAN BKF in the stiffening process of glass fiber fabrics.

ESTARFIN FLC:

Fluor-carbon resin, aqueous based for soil-, oil- and water-repellent finish.

ESTEKOLL BKW:

PVAc-dispersion with plasticizer, adhesive for laminating textile/textile and textile/paper, filling agent for textile finishing.

ESTEKOLL FL:**ESTEKOLL FLW:**

Fiber flock binder; dry cleaning and washing resistant. Suitable for screen printing and rotary screen printing machines.

ESTEKOLL HL20:**ESTEKOLL HL20/50:****ESTEKOLL HL25:****ESTEKOLL HL25/200:**

Hot-melt powders with low melting range for laminating and coating fusible interlinings for the shoe industry.

ESTEKOLL HL30:

Thermoplastic resin solution; heat-sealable coating, non-tacky, with very low fusing range.

STOCKHAUSEN: Textile Auxiliaries (Continued):

Product Name:

ESTEKOLL HL40:

Dispersion, forming thermoplastic film after drying, can be applied as coating agent for fusible interlinings in low melting range, and for laminations.

FIXAMIN PUK:

Polyurethane dispersion for textile coatings, imparting extremely good softness; dry cleaning and washing resistant.

FIXAMIN PU421:

Polyurethane dispersion for finishing and coating, can be coagulated with acids or cationics.

INTRASOL FI:

Combination of emulsifiers for the production of spinning and twisting oils as well as for lubricants based on mineral oil, antistatic

LAVORAL 100:

LAVORAL 150:

LAVORAL NSM:

Non-ionic detergents for universal use in all finishing processes.

LAVORAL AW100:

Highly concentrated anionic detergent in flake form. Soluble in cold and warm water. Universal detergent for all processes, also in combination with LAVORAL 100 and 150.

LAVORAL F:

Detergent, anionic, for universal use in the whole pH-range, especially wool and wool blend articles.

LAVORAL LO:

Alkyl sulfate; anionic detergent especially for wool and wool-blend fabrics, giving a pleasant handle. Foaming agent for dispersions.

LAVORAL PMO:

Surfactant combination based on alkyl aryl sulfonate, mainly for the finishing of wool- and wool-blend fabrics; advantageous for fabrics receiving water-repellent finish.

STOCKHAUSEN: Textile Auxiliaries(Continued):**Product Name:****LAVORAL S312:****LAVORAL S312N:**

Special agent for after treatment of reactive dyed material to remove dye-stuff hydrolysates quickly and completely; improves water and washing fastness.

LAVORAL WAM:

Anionic milling- and washing agent; alkyl aryl sulfonate with special amides. Suitable in neutral and ammoniacal processes. Blended with nonionic detergents to shorten rinsing time.

LAVORAL WBN:

Special non-ionic detergent for paper felts, improves absorption capacity of new felts.

LAVORAL WM:

Non-ionic universal detergent for all textile materials, very efficient at low temperatures and in short continuous scouring processes; can be used in the whole pH-range.

LAVORAL WMS:

Similar to LAVORAL WM, but foamless at temperatures above 35C.

MIRONOL 401:**MIRONOL 402:****MIRONOL 403:**

Auxiliaries to decrease viscosity of PVC-plastisols; improve the coating properties and deaeration of PVC-plastisols. Do not change the thermo-stability and light-fastness.

MIROX AM:

Thickening agent in dispersion form, low viscosity, easy to blend with other dispersions; the thickening effect occurs when adding alkali to pH 7.

MIROX FDN:

Water-soluble resin in powder form, screen printing adhesive for all types of machinery, can be washed off easily, compatible with all dyestuffs; very effective in low concentrated solutions (1:14 for light weight cotton fabrics).

MIROX KL:**MIROX KLX:**

Selvedge glues, based on a non-thermoplastic resin dissolved in a non-flammable solvent; to be applied on slitting machines for circular knits or at the stenter; avoids curling of selvages

STOCKHAUSEN: Textile Auxiliaries(Continued):

Product Name:

MIROX OX:

Special additive for aqueous pastes of polyamide or polyethylene hotmelts for coating fusible interlinings.

MIROX TA:

Polyacrylic thickening agent for aqueous polymer emulsions and latex dispersions; backing of plush and carpets; improves antistatic properties.

MIROX 3513:

Selvedge glue in dispersion form, stable to mercerizing.

MONOPOLAVIVAGE DDN:

Twisting lubricant for Two-for-one twisting to protect the yarn, and to avoid dust; antistatic, non-ionic; can be washed off easily.

MONOPOLAVIVAGE DD2:

Yarn lubricant for Two-for-one twisting with dosing equipment in the balloon-limiter.

MONOPOLAVIVAGE DFL:

Twisting lubricant, anionic, can be washed off easily, especially for textiles to receive water-repellent finish later.

MONOPOLAVIVAGE MSD:

Twisting and warping oil with insecticide; assists moth-proofing for wool- and wool blend yarns.

MONOPOLAVIVAGE TKR:

Non-splashing lubricant for sectional warping of spun yarns, e.g. for Raschel/terry cloth.

MONOPOLBRILLANT-OL:

Finishing oil based on castor oil for combination with starch, PVAc, and other filling agents; provides cotton- and cotton blended fabrics with a full handle.

PERINTROL FH:

Dyebath lubricant, to avoid crease marks in jets and winches.

PERINTROL NBR:

Dyebath lubricant, non-ionic, foamless; avoids crease marks.

STOCKHAUSEN: Textile Auxiliaries(Continued):**Product Name:**

POLYSTABIL DSB:
POLYSTABIL DSL:
POLYSTABIL DSE:
POLYSTABIL DSB/OP:
POLYSTABIL DSL/OP:

Coating pastes for the Kannegiesser-DS-process to stabilize cut face fabrics instead of fusing with interlinings.

POLYSTABIL SIS:

Single component, cross-linking silicone-elastomer; ensures dimensional stability and recovery of knitted fabrics; provides a soft, smooth handle and excellent sewability even with woven material.

PRAEPAROL AS:**PRAEPAROL HKS:**

Spinning lubricants for semi-worsted and woollen system; especially suitable for carpet- and upholstery yarns; free of mineral oil, antistatic.

PRAEPAROL 4586:

Preparation for glass staple fiber produced by either spinnerette extrusion or drawn rod; two-for-one lubricant with high resistance to fogging (evaporation).

PRAEPAROL HN:

Spinning lubricant for woollen system, based on mineral oil, non-ionic, good washability.

PRAEPAROL ZP30:

Special agent to increase the fiber/fiber friction in spinning, compatible with most spinning lubricants; improves the tear strength of fabrics when used in finishing; anti-slipping agent.

PRAESTABITOL V:

Finishing oil with high stability to electrolytes; provides fabrics with a full handle and improves the penetration; can be combined with other anionic and non-ionic chemicals, dispersing and penetrating agent for wet dyestuffs.

SARPIFAN AK:

Coating compound for hand-tufted carpets, ready for use.

STOCKHAUSEN: Textile Auxiliaries(Continued):

Product Name:

SARPIFAN BKF:

SARPIFAN BKFN:

SARPIFAN BKS:

PVAc-dispersions, free of plastiziser, for all finishing operations, compatible with anionic and non-ionic softeners, can be combined with water-repellent agents, non-ionic.

SARPIFAN BKFH:

Combination of a polyvinyl dispersion with a water-repellent agent, slip proof finish of glass fabrics for asphalted roof paper.

SARPIFAN CAW:

Polymer dispersion, spray binder for HF-waddings, knot-fixation of fish nets.

SARPIFAN HF 300:

Hot-melt in powder form for coating fusible interlinings, good stability to laundering, fairly good stability to dry-cleaning.

SARPIFAN HP1:

SARPIFAN HP3:

SARPIFAN HP37:

Components for PVC plastisols to be used as coating agents for fusible interlinings, good adhesion to siliconized fabrics; dot-printing system.

SARPIFAN HP75:

SARPIFAN HP77:

SARPIFAN HP78:

SARPIFAN HP80:

SARPIFAN HP82:

Printing and dispersing agents for polyamide-, polyethylene- and polyester fine powders to be used for dot-coating of fusible interlinings; high running stability of aqueous paste systems.

SARPIFAN MKD:

Special dispersion for coating polyester yarns to be used for technical fabrics (paper, felt, etc.); adhesive for pigment printing.

SARPIFAN MKP1:

SARPIFAN MKP2:

Epoxy resin compounds for treatment of technical textiles, especially glass fabrics and yarns. Excellent binding properties with bitumen and resins.

STOCKHAUSEN: Textile Auxiliaries(Continued):**Product Name:****SARPIFAN MKV:**

Cross-linking agent for acrylic acid esters, improves the fastness to laundering and dry-cleaning.

SARPIFAN NC200:**SARPIFAN NC300:****SARPIFAN NDP200:**

High-density polyethylene powders for the coating of shirt interlinings.

SARPIFAN NL:

Dispersion of an elastomer with extremely high stability to solvents, self-cross-linking, very elastic rubber-like film, compatible with most fillers.

SARPIFAN VB:

Acrylic acid ester dispersion, binder for fiber-fill, cross-linkable; elastic non-sticky film, good adhesion to fibers, also finishing of industrial fabrics.

SARPIFAN VBA:

Latex dispersion, self cross-linking, slip proof finish for glass fabrics with outstanding resistance to alkaline conditions; coating of twisted PES-filaments.

SARPIFAN VT:

Acrylic ester dispersion, binder for non-wovens with a soft handle.

SARPIFAN WRG:

Acrylic acid ester dispersion with extremely high stability to solvents, back-sizing of velvet upholstery fabrics; good pile fixation; basis for fiber flock binder.

SEBOSAN AS:

Softener for universal use, non-ionic, compatible with pre-condensates in resin finishes; smooth, full handle.

SEBOSAN AS100:

Non-ionic softener, 100% active substance, for universal use.

SEBOSAN NA100:

Non-ionic softener in flake form, 100% active substance, cold water soluble, to make solutions ready for use (10-15% active substance); good rewetting effect.

STOCKHAUSEN: Textile Auxiliaries(Continued):

Product Name:

SEBOSAN NGB:

Wax containing softener, giving a special smoothness to yarn and fabrics, improves the sewability of woven- and knitted fabrics.

SEBOSAN NGS:

Lubricant/softener containing silicones, improves sewability of woven- and knit goods, cotton sewing thread lubricant.

SEBOSAN SIP:

Silicone elastomer containing special additives to improve sewability of woven- and knit goods. Application by padding or long bath.

SEBOSAN SWR:

Cationic softener with excellent antistatic, improves the smoothness of fibers, can be applied as antistatic agent in the backwash on wool and acrylic tops.

SEBOSAN TCN:

Special softener for terry cloth; gives excellent absorbency; pre-treating of knit goods to be printed.

SEBOSAN WK100:

Cationic softener, 100% active substance, in flake form, cold water soluble, excellent exhaustion; to be used on all fibers and in the dyebath with cationic dyestuffs; high fiber smoothness.

SEBOSAN 696 flussig:

Cationic softener for cotton- and cotton-blended knits, antistatic.

SEBOSAN 4424:

Napping assistant for synthetic knitted and woven fabrics; softener based on silicone, improves sewing properties; component for space-dyeing lubricant; antistatic.

SOLOPROL BL:

Organic bleaching bath stabilizer, effective over long process times with hydrogen peroxide; permits reduction of water glass content.

SOLOPROL WO:

Dispersant for trimers to be used in the reduction clearing of dyed polyester and for cleaning dyeing equipment.

STOCKHAUSEN: Textile Auxiliaries(Continued):**Product Name:****STOKAL SLK:**

Frothing agent for adhesives based on natural latex, to be used in fabric/fabric lamination (shoe material).

STOKAL SNG:

Dispersion of vulcanizing and foaming agents for natural and synthetic rubber for foam carpet backing, gel system.

STOKAL SN-RV:

Dispersion of vulcanizing and foaming agents for synthetic rubber for foam carpet backing, non-gel system.

STOKAL SR:

Frothing agent for dispersions, allows minimal add-on of finishing liquids, gives foam with optimal stability.

STOKAL VU:

Dispersion of vulcanizing agents for natural- and synthetic latex.

STOKORON 55:

Naphthalene sulphonate compound, used as dispersing agent, especially for vat and disperse dyes.

STOKORON B200:

Organic complexing agent for treatment of water. Removes hard water deposits.

STOKOTAL DX:

Anionic softener for fabric finishing; can be combined with all types of filling agents; softener with stabilizing effects in peroxide bleaching of cotton yarns.

STOKOTAL PA:

Wax emulsion, improves the abrasion properties of crease-resistant finished fabrics, improves the sewability; lubricant for polypropylene ropes.

SULFATON MES200:

Concentrated wetting agent for mercerizing; stable to caustic soda up to 32 Be'; good rinsability, low foaming.

SULFATON RN:

Rapid wetting agent for medium pH-range.

STOCKHAUSEN: Textile Auxiliaries(Continued):

Product Name:

SULFATON TK:

Special wetting agent for carbonizing, improves the penetration of sulphuric acid and the rewet-ability in rinsing properties, saving time and water in neutralizing.

SULFATON UNS:

Anionic wetting agent with high stability to alkali, to be used in the pre-treatment of cotton, foamless.

TALLOFIN ES:

Paraffine wax emulsion, anionic, very stable, improves the sewability of fabrics and the lustre after calendering.

TALLOPOL AC:

TALLOPOL ACF:

TALLOPOL ACFN:

TALLOPOL 480:

TALLOPOL 4435:

TALLOPOL 4643:

Antistatic agents for carpet backing; gives a complete antistatic carpet in combination with conductive pile material; can be used in adhesives for secondary backing also, compatible with binders for needle felts.

TALLOPOL 319:

Antistatic agent for carpet backing with bitumen, EVA, PU and PVC.

TALLOPOL 4582:

Antistat for glass fiber manufacture, enables trouble free spinning of filaments from spinnerets to take off rollers.

TALLOPOL FE:

Winding oil especially for dyed polyester yarns, no influence on the fastness of dyestuffs.

TALLOPOL GK:

TALLOPOL GKS:

Antistatic agents, anionic, to be used as additives to other finishing agents.

TALLOPOL NV1:

TALLOPOL X5:

Winding oils for texturized yarns, non-ionic, antistatic, good washability.

STOCKHAUSEN: Textile Auxiliaries(Continued):**Product Name:****TALLOPOL 611:**

Antistatic agent for spray application on carpet pile, slightly cationic.

TETRALIX ALK:

Solvent containing detergent, non-ionic, can be combined with other non-ionic and anionic detergents, hydrophilic solvent.

TETRALIX HWN:

Solvent containing detergent, non-ionic, 100% active, especially for the removal of grease, stains, etc.

TETRALIX NN spez.:

Solvent containing detergent, anionic, especially for removing pitch from wood and other heavy combinations.

TETRALIX TU:

Solvent combination with optimal evaporation properties for stain removing.

STOCKHAUSEN: Textile Products:

Products:

CINCLEAR T:

CINCLEAR T is a powerful new reducing agent for use in textile applications which offers economy, improved safety, less storage space, and ease of handling.

CINCLEAR T shows a greater reduction potential than sodium hydrosulfite at a fraction of the amount used.

CINCLEAR T is much more stable than hydro in solution, and is excellent for continuous operations.

CINCLEAR T is much more stable than hydro and does not cake and form lumps which can clog lines from makeup tank to dye machine.

CINCLEAR T exhibits much less odor than hydro in normal operations.

CINCLEAR T can be used to strip wool or nylon at an acid pH.

Chemical and Physical Properties:

Chemical Nature: Formamidine Sulfinic Acid

Appearance: White Crystals

CINDYE DAC-888:

CINDYE DAC-888 is a butyl benzoate type carrier for the dyeing of polyester, polypropylene, and triacetate fibers and blends containing these fibers. It can be used as a carrier with disperse, cationic, and dyestuffs.

CINDYE DAC-888 will give efficient, trouble-free, level dyeing of polyester, polypropylene, and triacetate fibers without dye specks and spots in all types of equipment.

CINDYE DAC-888 is particularly recommended for high temperature dyeing, but can be used at atmospheric conditions. At atmospheric pressure, more CINDYE DAC-888 will be required in medium to full shades, but brighter and cleaner shades will be achieved.

CINDYE DAC-888 has little, if any, effect on the lightfastness of dyestuffs.

CINDYE DAC-888 is also an excellent aid in stripping and leveling.

Chemical and Physical Properties:

Chemical Composition: Self-emulsifiable blend of organic esters

Form: Liquid

Color: Light straw

STOCKHAUSEN: Textile Products(Continued):**CINDYE DAC-999:**

CINDYE DAC-999 is a unique product for dyeing polyester atmospherically or under pressure which has no odor and no adverse toxicological properties when compared to conventional carriers.

Description and Suggested Uses:

CINDYE DAC-999 has no odor and no known adverse toxicological properties.

CINDYE DAC-999 can be used both atmospherically and under pressure.

CINDYE DAC-999 leaves no odor in goods and has no adverse effect on light fastness.

CINDYE DAC-999 is low foaming and can be used in jet machines.

CINDYE DAC-999 is biodegradable and non-polluting in mill effluents.

Chemical and Physical Properties:

Chemical Composition: Patented proprietary compound

Form: Liquid

Color: straw colored

Activity: 100%

Ionic Nature: Anionic/nonionic

Emulsion Stability: excellent

CINLEVEL PAN:

CINLEVEL PAN is a cationic surfactant developed to give maximum migration and leveling of cationic dyes in the dyeing of acrylic fibers.

CINLEVEL PAN promotes full leveling with no loss in dye yield efficiency as it does not block dye sites.

CINLEVEL PAN gives a unique strike rate with mild retardation of dyes at the critical temp. range of 180 to the boil thereby eliminating costly hold times below the boiling temperature.

CINLEVEL PAN is non-quaternary, has no obnoxious odor and is biodegradable.

Chemical and Physical Properties:

Chemical composition: Complex organic compound

Form: Liquid

Color: Clear

Activity: 45%

pH of 1% solution: 4.5 to 5.0

Ionic nature: Cationic

Foaming properties: Low foaming

STOCKHAUSEN: Textile Products(Continued):

CINSOFT CR-70:

CINSOFT CR-70 is an excellent cationic softener and lubricant for the napping of natural and synthetic fibers.

CINSOFT CR-70 is non yellowing when used in normal applications.

CINSOFT CR-70 improves the sewing properties and helps to eliminate needle cutting on most synthetic and natural fabrics.

CINSOFT CR-70 helps to improve tear strength and abrasion properties.

CINSOFT CR-70 can be applied by both pad and exhaust.

Chemical and Physical Properties:

Chemical Composition: Blend of fatty amides and cationic polyethylenes.

Physical Form: Pourable paste

pH - 1% solution: 6-7.5

Ionic Nature: Cationic

CINSOFT N-BR:

CINSOFT N-BR is a nonionic lubricant and softener.

CINSOFT N-BR is readily dispersible in hot water. CINSOFT N-BR does not cause yellowing of whites or affect the lightfastness of dyestuffs. CINSOFT N-BR is non-reactive with other chemicals in the finish bath. It is heat resistant and will not volatilize during drying operations.

CINSOFT N-BR has high acid, alkali, and salt tolerance permitting its use in the dye bath when no subsequent rinse is required. If a rinse is required, CINSOFT N-BR should be applied during the last rinse.

CINSOFT N-BR is an excellent softener for all fibers both natural and synthetic. CINSOFT N-BR's excellent lubricating qualities provide excellent sewability of fabrics, and will give superior lubricity to yarns by application in the dye bath or in the emulsion trough.

CINSOFT N-BR, being high in lubricating properties, is recommended for application in dye baths to prevent chafing, crack-marks, rope marks, and "crow's feet" that are formed during the processing of fabrics. CINSOFT N-BR will give lubrication that will allow yarns some slippage.

Chemical and Physical Properties:

Chemical composition: Blend of glycerol monostearate and other fatty esters

Form: Viscous liquid

Color: White

Activity: 25%

pH of 1% dispersion: 6.5 to 7.5

Ionic charge: Nonionic

SUN REFINING AND MARKETING CO.: SUNPAR Series:

These oils are characterized structurally by a large number of paraffinic side chains (55% min. Cp), and thus are highly saturated. They excel in initial color. Compared to naphthenic and aromatic oils they are most resistant to oxidation and color degradation by ultraviolet light. Their resistance to oxidation increases as their molecular weight increases. SUNPAR oils are de-waxed to low pour points, and their volatility is quite low compared to the naphthenics and aromatics, as indicated by their higher flash points.

SUNPAR Grades:

Application: Textile Specialties

Viscosity Range: Low:

107:

Viscosity, SUS/100F: 65
Specific Gravity, 60F: 0.8524

110:

Viscosity, SUS/100F: 113
Specific Gravity, 60F: 0.8576

115:

Viscosity, SUS/100F: 155
Specific Gravity, 60F: 0.8649

120:

Viscosity, SUS/100F: 207
Specific Gravity, 60F: 0.8681

Medium:

130:

Viscosity, SUS/100F: 315
Specific Gravity, 60F: 0.8735

150:

Viscosity, SUS/100F: 492
Specific Gravity, 60F: 0.8751

High:

2170:

Viscosity, SUS/100F: 1719
Specific Gravity, 60F: 0.8866

2280:

Viscosity, SUS/100F: 2540
Specific Gravity, 60F: 0.8899

SUN REFINING AND MARKETING CO.: SUNTHENE Series:

SUNTHENE Oils are naphthenic oils especially processed to retain the same desirable properties as CIRCOSOL oils but with lighter color and excellent resistance to discoloration by heat or ultra-violet light. Thus, they also feature low odor levels and chemically, the aromatic levels needed for compatibility with many additives.

SUNTHENE Oils are severely treated naphthenic oils and do not require labeling as carcinogenic under the OSHA Hazard Communication Standard.

Application: Textile Specialties

Viscosity Range: Low

204:

Viscosity, SUS/100F: 40.8

API Gravity, 60F: 28.2

306:

Viscosity, SUS/100F: 57.9

API Gravity, 60F: 26.5

311:

Viscosity, SUS/100F: 109

API Gravity, 60F: 28.5

410:

Viscosity, SUS/100F: 108

API Gravity, 60F: 24.3

220:

Viscosity, SUS/100F: 205

API Gravity, 60F: 29.0

420:

Viscosity, SUS/100F: 210

API Gravity, 60F: 22.5

SYBRON CHEMICALS INC.: Textile Specialty Chemicals--Finishing:**Reactants:****REACTANT 412B:**

glyoxal based
durable press reactant

REACTANT 415:

glyoxal based
D.P. reactant, precatalyzed (zinc nitrate)

REACTANT 420:

glyoxal based
D.P. reactant, precatalyzed (magnesium chloride)

REACTANT MRF:

low formaldehyde release
D.P. reactant, precatalyzed (magnesium chloride)

REACTANT MR-15:

low formaldehyde release
D.P. reactant, precatalyzed (zinc nitrate)

REACTANT M-22:

low formaldehyde release
D.P. reactant, precatalyzed (magnesium chloride)

RESIN H:

monomeric urea formaldehyde
economical, shrink proofing and crease proofing agent

Thermosetting Resins:**RESIN G-88 Conc.:**

methylated melamine formaldehyde
lower formaldehyde in work place

RESIN G-90:

methylated melamine formaldehyde
stiffness resiliency on synthetics, extreme durability

RESIN GFL:

modified methylated melamine
economical stiffening agent for synthetics

JESCO 750:

methylated UF resin
high concentration, low cost stiffening agent for synthetics

SYBRON CHEMICALS INC.: Textile Specialty Chemicals-Finishing
(Continued):

Catalysts:

CATALYST CT:

amine salt
organic catalyst for urea formaldehyde and melamine resins

CATALYST FW:

magnesium chloride base
general purpose catalyst for all cellulose reactants

CATALYST T:

zinc nitrate base
fast curing catalyst for all cellulose reactants

CATALYST 42C:

magnesium chloride/activator
catalyst of choice for low free formaldehyde release reactants

CATALYST SN Spec.:

blend of organic metallic compound
catalyst for silicone water repellents

Softeners:

Fatty Acid Based:

J SOFT 111E:

cationic, fatty amide
luxurious soft hand, does not affect crockfastness

J SOFT C-42:

nonionic, ester type
economical, non-yellowing; side compatibility

J SOFT HC:

cationic, fatty amide
excellent soft full hand

J SOFT LC:

cationic, quaternary
slick hand, economical softener; effective on all fibers

TANASOFT CHP:

cationic
economical softener, soft full hand

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals - Finishing
(Continued):**

Softeners(Continued):

Fatty Acid Based(Continued):

TANASOFT CM:

cationic/nonionic
soft hand to all fibers and blends; improves fiber to fiber cohesion

TANASOFT PNL:

strongly cationic
durable softener, slick full hand

Polyethylenes:

POLYSOFT B:

nonionic, polyethylene emulsion
improves physical properties and sewability in durable press applications

TANASOFT PS-25:

nonionic, polyethylene
low cost, slick hand improves physical properties, sewability, etc.

TANASOFT HDP:

nonionic, high density polyethylene
slick hand, improves physical properties, sewability

Silicones:

CAREFREE SS:

nonionic, 100% silicone
unique slick soft hand, non-yellowing with improved sewability

SILKSOFTEB:

cationic
for cellulose & blends

SILKSOFTE D:

cationic, modified silicone emulsion
same as SBL

SILKSOFTE HPS:

cationic
for 100% synthetics

SILKSOFTE SBL:

nonionic modified
economical version of silicone softener; selection is based on mode of application & type of desired hand

SYBRON CHEMICALS INC.: Textile Specialty Chemicals - Finishing
(Continued):

Softeners(Continued):

Silicones(Continued):

SILKSOFT SUPREME:

nonionic, modified amino silicones
for cellulose and synthetic fibers

Emulsion Polymers:

Hand Builders:

CRILITEX H-50:

self crosslinking acrylic copolymer
stiff hand, extremely durable to washing and dry cleaning

CRILITEX H-58:

self crosslinking acrylic copolymer
soft full hand, durable to washing and dry cleaning - full
body

CRILITEX 914:

self crosslinking acrylic copolymer
extremely soft hand, non-tacky; durable

CRILICON XL:

acrylic copolymer
dry semi-firm hand, wide pH range compatibility, compatible
with fluorocarbons

RESIN 701:

polyvinyl acetate homopolymer
stiffening agent

CATOMER VA:

polyvinyl acetate homopolymer
unique stiffener, cationic exhaustible

RESIN G-90:

methyalted melamine formaldehyde resin
stiffness, resiliency on synthetics; extreme durability

RESIN 771:

polyvinyl acetate/acetate copolymer
reactive durable stiffener-self crosslinking

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals-Finishing
(Continued):**

Emulsion Polymers:

Pigment Binders & Low Crocks:

CRILIPRINT 788*:

nonionic, self crosslinking acrylic copolymer 60% solids
durable pigment and pad binder-softer than 799

CRILIPRINT 799*:

nonionic, self crosslinking acrylic copolymer 60% solids
durable pigment printing and pad dye binder--stiffer than 788

CRILIPRINT 1018D:

nonionic, self crosslinking, 45% solids
durable pigment printing and pad dye binders

CRILITEX N-2:

self crosslinking acrylic copolymer
soft hand, non-tacky; durable-softer than 788, 799 & 1018

CRILITEX 914:

self crosslinking acrylic copolymer
extremely soft hand, non-tacky; durable--softer than 788,
799 & 1018

LOW CROCK NF:

self crosslinking acrylic copolymer
topical finishing to prevent crocking, extremely soft hand

* Available in concentrations normally used in textile mills,
such as 799FF (45%) & 799FY (40%)

Anti-slip Agents:

DRITON:

colloidal silica
prevents fiber slippage, dry hand used only under alkaline
conditions

J SLIP NS-77:

modified silica
prevents fiber slippage, very effective on polyester, can be
used over a wide pH range

EXTENDOLOC:

nitrogenous resin
for special applications requiring soft hand, compatible with
fluorocarbons

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals--Finishing
(Chemicals):**

Deodorants:

DEODORANT DAF:

blend of formaldehyde acceptors and odorants
dual action formaldehyde acceptor and masking agent

TANAFRESH HFO:

nonionic
odor masking agent

Dullers:

LIGHT DULLER NF:

titanium dioxide dispersion
effective delustering of all fibers; produces soft hand

Gas Fading Inhibitors:

ANTIFUME T:

self-emulsifiable aromatic amino compound
inhibits color charge on acetate and Arnel due to atmospheric conditions, durable

JERSEY INHIBITOR:

aminohydroxy compound
non-durable; economical

RESIN G-100:

hydrophilic copolymer
gas fading inhibitor for Lycra

Print Clear Concentrates:

TANAPRINT CC-1:

synthetic thickener
for pigment printing

Rewetting Agents:

TANAWET FWA:

nonionic
high speed wetter for continuous application

TANAWET NRWG:

nonionic
low foaming non-rewetting penetrant

SYBRON CHEMICALS INC.: Textile Specialty Chemicals-Finishing
(Continued):

Flame Retardants:

Non-Durable:

*FLAMEGARD STS:

blend of inorganic salts
economical; effective on cellulosics and polyester/cellu-
losics blends

*FLAMEGARD DSH:

blend of inorganic salts
soft hand-use with water repellents

*FLAMEGARD SR:

blend of inorganic salts
very soft hand, non-stiffening at high add ons; effective on
all fibers and blends

*FLAMEGARD 50:

blend of inorganic salts
effective with all fibers and blends

Durable:

*FLAMEGARD PE Conc.:

organic phosphorus nitrogen condensate
extremely efficient flame retarding of 100% polyester-no salt

*FLAMEGARD FPA 908:

methylthiourea based compound
efficient flame retarding 100% nylon

RESIN CNX Special:

methylated thiourea formaldehyde condensate
flame proofing and hand modification of 100% nylon; effective
on all constructions, excellent shelf stability

RESIN FR 66:

thiourea formaldehyde resin
flame proofing and stiffening of 100% nylon; effective on
open constructions

* Registered for use in the state of California

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals-Finishing
(Continued):**

Water Repellents:

JER DRI WRI:

wax/aluminum salt complex
non-durable, economical, effective on cellulose

JER DRI WRN:

wax/zirconium salt complex
semi-durable; effective on all fibers with excellent high
temp resistance

JER DRI SLM:

synthetic high melting point wax emulsion
semi-durable; high spray ratings on nylon, spot proofing on
all other fibers, alkaline stable and compatible, useful in
shearing

CAREFREE 30:

silicone emulsion
durable, effective on all fibers

CAREFREE 60:

silicone emulsion
concentrated product of CAREFREE 30

TANAPEL 54:

high molecular weight thermosetting resin
capable of producing very durable water repellent finishes -
works well with fluorocarbons

Fluorocarbon Extenders:

EXTENDOPEL:

hydrophobic complex
reduces consumption of fluorochemicals-no effect on oil repell-
ency, improves water repellency

EXTENDOPEL EXTRA:

hydrophobic nitrogeneous complex
effective extender for fluorochemicals

TANAPEL 54:

high molecular weight thermosetting resin
reduces cost of fluorochemical applications with markedly
improved spray ratings and durability, yields a pleasant
resilient hand

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals-Finishing
(Continued):**

Weighters:

JERSEY WT:

starch derivatives and crosslinkers
weighter for all fibers, producing firm hand

WEIGHTER PM:

modified gums & starch
soft full hand

Foam Finishing Auxiliaries:

FOAMALL X:

blend of surface active agents
Frothing agent produces high blow ratio microbubble foam
with a proper balance of wetting penetration and stability

STABILIZER P:

high molecular weight hydrophilic
for use with FOAMALL X to increase foam elasticity and
half life

FOAMSOFT W-1:

modified cationic polyethylene
effective cationic softener for cellulose and blends, no
adverse effect on foam; in most applications, enhances foam
properties

TANAWET NRWG:

nonionic surface active
non-rewetting foaming agent for fluorochemical foam finishing

**SYBRON CHEMICALS INC.: Textile Specialty Chemicals - Finishing
(Continued):**

Miscellaneous:

ROLLER CLEANER A:

solution of penetrants and wetting agents in an aromatic solvent
self emulsifiable, effective heavy duty roller cleaner, non-staining; removed easily with water; red label

SCOUR NFP:

roller cleaner, screen clear
high flashpoint solvent, non-red label

EDGE GUM 701:

compounded polymer polyvinyl acetate based
used for selvedge for non-curling; non-flammable

FIBERMATE AN-521:

cationic
non-durable antistat

PILLMASTER 100:

acrylic based formulated
durable anti-pilling agent

PILLMASTER N-2:

acrylic based, soft hand
durable anti-pilling agent

NAPSCROOP NP-20:

blend of fatty esters & emulsifiers
general purpose napping and scrooping agent

SOILAC 617:

carboxylated acrylic terpolymer
effective soil release & anti-redeposition agent for use with cellulose reactants, primarily in D.P. applications

SOIL SOFT SW:

nonionic, for use with SOILAC 617
improves soil release properties

TANABOND STA:

print table adhesive
a durable, pressure sensitive, aqueous screen printing table adhesive

SYNTHRON, INC.: Textile Products:**Additives for Sizing:****GOMMEX BPO-600:**

Polyacrylate for improving size finishes.

GOMMEX CFD:

Modified starch size additive.

PROTE-SOL BMD:

Anionic, non-foaming wetting agent for fibers.

MOUSSEX 941-PL:

Easily dispersed, non-silicone, anti-foam.

MODAREZ ACM:

Anti-static, lubricant finish for fiber production.

Additives for Pretreatment:**PROTE-SOL 845-AMP:**

Scouring agent

PROTE-PON L:

Concentrated synthetic detergent and wetting agent. Acts as both an anionic and non-ionic wetting agent.

MASQUOL A-340-N:

Sequestering, dispersing, and anti-redepositing agent. Acts as a dispersing and fluidizing agent for effective de-sizing.

PROTE-PON D10NK:

Phosphate ester surfactant. Stable in both strong acids and alkali. Also completely soluble in water at any temperature. Low foam producer.

MOUSSEX 561-PL:

Non-silicone defoamer for mercerizing processes.

ACTIRON PHD:

Bleach stabilizer that is effective in acid mediums. Allows bleaching of cotton and dyeing of polyester in same bath.

SYNTHRON INC.: Textile Products(Continued):

Additives for Dyeing and Printing:

PROTE-GAL H-43:

Antimigration additive for dyeing and printing.

MODAREZ COU:

Additive for preventing migration of non-ionic binder systems in print pastes.

MODAREZ CAL:

Antimigrating agent for anionic binder print pastes.

PROTE-SOL BMD:

Non-foaming wetting agent.

MOUSSEX 941-PL:

Non-silicone antifoam.

PROTE-FIX WF:

Formaldehyde-free agent for fixing dyes on cotton.

PROTE-FIX TS:

Dye fixing agent.

MASQUOL A 340 N:

Additive for dispersing dyes and preventing redepositing. Also sequesters and acts as an anti-migrant in printing.

MOUSSEX 910 SE:

Modified silicone anti-foam with self dispersing ability. This anti-foam is dilution stable.

PROTE-SOL DSL-400:

Polymethyl naphthalene sulphonate sodium salt dispersant with very low free sulphate content.

Silicone Finishes for Fabric Treatment:

PROX-AMINE NP 966 GL:

Softener for cottons and blends with cotton. Allows excellent sewability.

PROX-AMINE CS 988GL:

Single-component reactive silicone softener.

PROX-AMINE ESI-U:

Silicone elastomer softener that is very effective.

SYNTHRON INC.: Textile Products(Continued):**Resins for Fabric Treatment:****PROX DGM-2XC:**

Modified glyoxal resin with very low free formaldehyde.

PROX 2117-PC:

A glyoxal/carbamate resin that is precatalized and has a very low level of free formaldehyde.

PROX 2007:

A new reactive resin that gives very low formaldehyde release on finished fabrics.

PROX DCLF:

Urea formaldehyde hand building resin that has a low level of free formaldehyde.

Water-Repellent and Fluorocarbon Extender Additives:**DRYOL PA:**

Anionic water-proofing agent.

DRYOL S:

Silicone resin emulsion for water-repellent finishes.

DRYOL DS:

Economical silicone water-repellent additive.

SYNTHROPEL FEABB:

Fluorocarbon extender additive for water-repellent finishes.

PROTE-SOIL 397:

Fluorocarbon extender resin for soil and stain release finishes.

Flame Retardant Agents:**PROTE-NYL PN 1406S:**

A permanent flame retardant finish for cellulose fibers.

PROTE-NYL BN-5724-S:

A dry-cleaning resistant flame proofing finish for most fibers.

PROTE-NYL NP-2124-S:

Non-corrosive flame retardant finish for most types of fabric.

ULTRA ADHESIVES, INC.: FOAMTROL 103:

FOAMTROL 103 is a 100% active product which contains no water or silicones. It is effective in both acid and alkaline media as well as some solvent systems. The shelf life is indefinite but like all dispersions, should be gently stirred before using to insure uniform distribution. Mechanical agitation is not necessary.

Applications:

Polymerization Reactions: Polyvinyl Acetate, Polyvinyl Chloride, Acrylics, Butadiene-Styrene and Copolymers.

Paints and Coatings: All water-based paints and coatings containing the above polymers.

Paper and Textiles: Gelatins, Casein, Starch, Gums, Latex, Dextrin, Polyvinyl Alcohol, Fluorochemicals, Emulsifiers, Wetting Agents, Asphalt Emulsions and Resins.

Processing Industries: Cleaning Compounds, Waste Disposal, Detergents, Evaporation, Distillation and Fermentation.

Suggestions For Use:

How to Use: Add FOAMTROL 103 directly to system. This may be done batch-wise or if process is continuous, metering methods may be used.

Where to Use: FOAMTROL 103 should preferably be added to that stage in the process just prior to the foam forming period. However, it may also be used to suppress foam already generated by direct addition to the foam.

How Much to Use: The minimum concentration must be determined for each specific problem encountered. This can easily be accomplished by the following method:

Add 0.5% FOAMTROL 103 based on the weight of batch to be defoamed as a starting point for the first trial. Reduce concentration to half the amount of each succeeding trial until effectiveness is lost.

Specifications and Properties:

Physical State: Liquid Dispersion

Color: White

Active Ingredients: 100%

Acid No.: 9-10

pH: 6.5-7

Specific Gravity: 0.802 @ 20C

Weight/Gallon: 6.7 Lbs.

Dispersability: Will disperse in water

Shelf-Life: Indefinite

ULTRA ADHESIVES, INC.: ZINPLEX 15 Zinc Crosslinking Agent:

ZINPLEX 15 can be used to crosslink aqueous carboxylated polymers to impart and improve the following physical properties:

1. Non-Blocking Characteristics
2. Chemical Resistance
3. Hardness
4. Water and Solvent Resistance
5. Detergent Resistance
6. Mar Resistance

Specifications and Properties:

Percent Solids (As Zinc Oxide): 15.0
Appearance: Colorless Liquid
pH: 11.3-11.7
Weight per Gallon: 10.1 lbs.
Odor: Strongly Ammoniacal

Suggested Industrial Applications:

ZINPLEX 15, a Zinc Complexing Agent, is an active modifying agent for the following industrial areas of application:

1. Floor Polishes
2. Paper and Paperboard Overprint Coatings
3. Clear and Pigmented Industrial Finishes
4. Printing Inks
5. Textile Finishes
6. Adhesives

The addition level is predicated on the degree of crosslinking required and is dependent upon the concentration of the carboxyl functionality of the resin (polymer) used. The optimum ZINPLEX 15 level must be determined experimentally to assure maximum performance properties and stability of the end coating. With certain polymer systems, prestabilization may be necessary prior to the addition of ZINPLEX 15. Surfactants such as the high ethylene oxide nonionics (i.e. TRITON X405) offer good stabilizing properties.

ZINPLEX 15 is a composite of ingredients which are listed under code of the Federal Register 21, Part 182, Entitled Substances Generally Recognized As safe (G.R.A.S.).

R.T. VANDERBILT CO., INC.: Bactericides/Fungicides:

VANCIDE:

Is the group name for a line of bactericides and fungicides used in agricultural, veterinary, cosmetic and pharmaceutical products. They also have application in textiles, detergents, dry wall plaster and industrial deodorants. VANCIDE products are highly effective with relatively low toxicity.

VANCIDE 51:

Sodium dimethyldithiocarbamate and sodium 2-mercaptobenzo-thiazole supplied as a 30% solution. Industrial bactericide/fungicide for textiles and for agriculture.

VANCIDE 51Z:

Zinc dimethyldithiocarbamate and zinc 2-mercaptobenzothiazole. Available as a water insoluble powder. Used as a mildew-proofing agent and preservative in dry wall plaster.

VANCIDE 51Z Dispersion:

50% liquid dispersion of VANCIDE 51Z. Used to prevent mildew on textiles and in cellulose sponges.

VANCIDE 89:

N-trichloromethylthio-4-cyclohexene-2,2-dicarboximide. Technical grade of captan used as an industrial preservative, a wall paper adhesive preservative and in veterinary products for skin diseases.

VANCIDE 89RE:

Purified captan. Antimicrobial and preservative for cosmetics and topical pharmaceuticals. Available as a white powder.

VANCIDE MZ-96:

Ziram wettable powder, to preserve starch and synthetic latex adhesives formulations against bacterial degradation. Also used in adhesives in dry wall construction.

VANCIDE TH:

Hexahydro-1,3,5-triethyl-s-triazine. Industrial preservative, prevents bacterial action in cutting oils, synthetic rubber latex, starch based adhesives, latex paint and aqueous slurries. It is soluble in acetone, ethyl alcohol, ether and water, moderately soluble in hydrocarbon solvents.

VANCIDE TM:

98% active technical thiram used to formulate agricultural products.

R.T. VANDERBILT CO., INC.: Mineral Fillers:**PYRAX:**

Is the trade name for pyrophyllite, a hydrous aluminum silicate. This mineral is chemically a clay but has the appearance and some of the physical properties of talc. The principal use is as a diluent or carrier for agricultural toxicants. PYRAX is also used in water paints, dry wall plasters and as a filler for plastics.

CONTINENTAL Clay:

Is an agricultural grade of sedimentary kaolin having unusually fine particle size. Suspensions of CONTINENTAL Clay settle slowly and readily redisperse when shaken. Non-abrasive and non-alkaline, this clay is compatible with commonly used agricultural wetting and dispersing agents.

PEERLESS Clay:

A sedimentary kaolin, is used in adhesives, wall-board, paint, paper, fertilizer, roofing granules, crayons and powdered soaps. PEERLESS Clay is available in three grades according to fineness of particle size and color.

NYTAL:

Hydrous magnesium silicate, is an industrial talc. It is available in four grades, two fine talcs and two ultrafine air milled grades with excellent white color.

VANSIL W:

Is the tradename for wollastonite. It is available in three grades varying in particle size. An acicular calcium silicate, it is used as a filler and reinforcing agent in plastics, cement, wallboard, soil conditioner and in casting plasters.

VIKON CHEMICAL CO., INC.: ALDOR Masking Agents for the Textile Industry:

ALDOR 48-131:

For Fire Retardant Finishes

ALDOR 48-131 is a self-emulsifying masking agent developed specifically for masking the odor of durable fire retardants and has already proven its effectiveness on millions of yards of fire retardant sleepwear. It is designed to mask the odors peculiar to the fire retardant chemicals and to formaldehyde and amine odors which may be released from the finishes. These odors often develop on the fire retardant fabrics during cutting and later on garments, especially when packaged in film bags.

ALDOR 48-131 is a preferred choice because of its nondistinctive odor and because of its economy.

ALDOR 48-131 is recommended at a concentration of 2-3 ounces per 100 gallons for the initial trial.

ALDOR 1465:

ALDOR 1465 is a self-emulsifying masking agent with a non-distinctive scent designed to cover the odors of formaldehyde and amines. These odors develop both in the mill during application of the finish and in the cutting plant during pressing and curing with certain of the reactants for the delayed cure finish.

ALDOR 1465 is designed to allow part of its constituents to come off in the mill to mask the formaldehyde there and to retain the balance through drying to come off during pressing and curing in the cutting plant. It is a proven product which is used worldwide.

ALDOR 1465 is recommended to be used at a concentration of one to three ounces per hundred gallons in the reactant bath.

ALDOR 2744:

Masking Agent for Resin Finishes

ALDOR 2744 is a self-emulsifying masking agent with a non-distinctive scent designed to cover the odors of formaldehyde and amines. These odors often develop on resin finished fabrics during cutting and later on garments, especially when packaged in clear film bags.

ALDOR 2744 has been adopted widely in the textile industry because of the demonstrated superiority. ALDOR 2744 is considered to have a preferred odor and to be the most economical to use.

ALDOR 2744 is recommended at a concentration of one and one-third ounces per hundred gallons.

VIKON CHEMICAL CO., INC.: Chelating Agents for Textile Processing:

PLEX PC:

PLEX PC is a modified diethylene triamine pentaacetic acid calcium-sodium salt. It contains a minimum of 30.0% active agent. The chelating values (CV) are in the table below.

PLEX PC is a unique product designed to provide chelation of copper, manganese and iron in an alkaline peroxide bath in the presence of calcium or magnesium with and without silicate.

PLEX PC is effective for kier bleaching in kiers lined with lime blocks.

Comparable bleaches made with PLEX PC in place of sodium diethylene triamine pentaacetate are definitely more white.

Chemical Properties:

Minimum % Active Agent: 30% DTPA as calcium-sodium salt

Chelating Activity at pH 12:

4-6 mg CaCO_3/g (AATCC Method 149-1980)

36-39 mg CaCO_3/g (CuPAN)

Physical Form: Clear, pale straw liquid

pH in 1% solution: 11-12

Approximate Solubility in Water: Miscible in all proportions

Approximate Density: 9.8 lbs./gal.

Specific Gravity: 1.17

SEQ 80:

SEQ 80 is a standard di-ethylene triamine pentaacetic acid pentasodium salt. It contains a minimum of 40.2% as DTPA Na_5 . There are approximately 50% total dissolved solids. The chelating activity is 80-82 mg CaCO_3/g .

SEQ 80 is the preferred chelating agent of the textile industry for use in peroxide bleaching baths because of its high stability to oxidation in the peroxide as compared with EDTA and HEDTA and because it chelates iron and copper preferentially in the presence of calcium and magnesium. It is most important that any copper which gets into the peroxide bleach bath be chelated instantly as it can cause local fiber degradation resulting in pinholes.

It is recommended that 0.05 - 0.10% of SEQ 80 on the weight of the fabric going through be used in the peroxide bleach bath.

Properties:

Appearance: Clear, pale straw liquid

Minimum % Active Agent: 40.2% DTPA Na_5 (approximately 50% total dissolved solids)

Chelating Activity at pH 11:

80-82 mg CaCO_3/g . by Calcium Oxalate (AATCC TM #149-1985)

78-80 mg CaCO_3/g . by Copper PAN (New AATCC TM)

pH 1% Solution: 12.0-13.5

Solubility in Water: Miscible

VIKON CHEMICAL CO., INC.: NOSIL A-57:

Textile Peroxide Bleach Stabilizer

In recent years it has become increasingly important to eliminate the use of silicate in textile hydrogen peroxide bleaching. Silicate-free bleaching produces much softer fabrics. Silicate is difficult to rinse. It gives harshness and stiffness of hand. Elimination of silicate also reduces dye resist spots particularly those caused by insoluble calcium and magnesium silicate deposits. Abrasion of the fabric by calcium and magnesium silicate deposits on the machinery is also eliminated. Because of the hardness and tenacity of calcium and magnesium silicate deposits on machinery the cost of removing them is substantial.

NOSIL A-57 is a non-silicate peroxide stabilizer suitable for use over a wide pH range and temperature range. It is also effective in a wide range of caustic and peroxide concentrations. In certain cases, it has been shown to be effective in concentrations as low as 5% on the weight of 50% peroxide, when used alone. Possibly, even less may be needed when auxiliary stabilizers or chelates are employed. However, NOSIL A-57 is formulated especially to allow for reduction in the amounts of auxiliary stabilizing and/or sequestering agents needed.

NOSIL A-57 is formulated for product stability whether it is used in a caustic or peroxide head tank. It is more stable when added to the tank first, before the caustic, peroxide or other constituents.

Bleaching of the hydrogen peroxide saturated fabric is carried out in the usual manner. All components of NOSIL A-57 are of low toxicity or have no known toxicity. All components have no known toxicity to activated waste disposal plants. All components are readily biodegradable.

Product Specifications:

pH: 4-5

Specific Gravity: 1.080-1.090

% Solids: 14-16%

Copper PAN CV: 8-10 mg CaCO_3/g product

Chromazurol-S CV: 30-33 mg CaCO_3/g product

Calcium Oxalate: 0 mg CaCO_3/g product

Iron Chelation: >100 ml 0.1M FeCl_3

VIKON CHEMICAL CO., INC.: PLEX HT Chelating Agent for Textile Processing:

PLEX HT is a blend of chelating agents which has the ability to dissolve iron rust from cotton and cotton blend fabrics in strong caustic solutions such as are used in saturation of cotton fabric prior to continuous peroxide bleaching. It also has the ability to keep the chelated iron from redeposition as the pH drops during subsequent rinsing.

PLEX HT is an excellent agent for removing iron rust deposited on cloth suspended in water from old piping and other sources. It is also effective in removing iron rust spots which occur from various sources such as rusty loom wires, rusty knitting needles, rust in lubricating oil and in knitting needle oil as well as in the outer layers of fabrics which have been baled with iron bands and exposed to the weather. Another case is rust falling from rusty beams and as condensate from rusty pipes overhead,

The ability of PLEX HT to keep iron chelated as the pH drops during rinsing is very important.

PLEX HT also has the ability to chelate copper and manganese in most forms other than as the metal during the caustic saturation step and subsequent rinsing. Copper and manganese are powerful peroxide decomposition catalysts. They must be eliminated as much as possible prior to the peroxide bleaching step.

PLEX HT works effectively to remove iron rust even in the peroxide bleach bath in batch processes such as bleaching prior to dyeing on becks and on jets. It also works well in the bleach bath on continuous one stage machines such as the Jemco range and the Argarthen machine.

PLEX HT should be used at concentrations of 0.1%-0.5% on the weight of the bath regardless of the bath to fabric ratio.

Chelating Values by the Copper PAN method and by AATCC Method #149-1985 (Calcium Oxalate Method) for PLEX HT are cited below.

Chemical Properties:

Minimum % Active Ingredient: 52% Active Solids

Chelating Activity: 43-45 mg CaCO_3/G (#149-1980)

42-44 mg CaCO_3/g (#168-1987)

65-70 ml 0.1M FeCl_3 (FeCV)

Physical Form: Clear, pale straw liquid

pH in 1% solution: 11-12

Approximate Solubility in Water: Miscible in all proportions

Approximate Density: 9.7 lbs/gallon

Specific Gravity: 1.14-1.18 @ 25C

VIKON CHEMICAL CO., INC.: SEQ 100 Chelating Agent for Textile Processing:

SEQ 100 is a standard ethylene diamine tetraacetic acid chelating agent as the sodium salt. It contains a minimum of 38% active agent as the EDTa Na₄. There are approximately 40% total dissolved solids. The chelating activity at pH 11 is 100-102 milligrams CaCO₃/g.

SEQ 100 is the most widely used general purpose type chelating agent. It chelates calcium, magnesium and most other common metals throughout the pH range. It chelates iron from pH 2-11.

SEQ 100 is used in preparation of cotton and cotton blend fabrics and also can be used in scouring synthetic fabrics when there is a substantial amount of interfering heavy metals on the fabrics. A concentration of 0.1% on the weight of the bath in the caustic scour prior to peroxide bleaching will remove calcium, magnesium and copper but very little iron as the metal or as the rust. If it is necessary to remove iron or rust, other products such as SEQ CF in strong caustic are recommended.

0.1% of SEQ 100 on the weight of the bath or usually 1% on the weight of the fabric is sufficient for scouring synthetic fabrics to remove copper, calcium and magnesium and other heavy metals which may interfere with subsequent dyeing and finishing.

SEQ 100 is the preferred type of chelating agent for most types of dyeing. 0.25-1% on the weight of the yarn or fabric being dyed is used as required by the presence of iron, copper, calcium and magnesium in the dye bath water.

SEQ 100 is used in dyeing direct, vat and naphthol dyes on the alkaline side and is used in dyeing acid and disperse dyes on the acid side.

Chemical Properties:

Minimum % Active Agent: 38% EDTa Na₄ (approximately 40% Total Dissolved Solids)

Chelating Activity at pH 4-5: 66-67 Mg Fe/g
at pH 4-5: 29-30 mg Cu/g
at pH 11: 100-102 mg CaCO₃/g

Physical Form: Clear, pale straw liquid

pH in 1% Solution: 11-12

Approximate Solubility in Water: Miscible in all proportions

Approximate Density: 10.6 lbs/gal

Specific Gravity: 1.26-1.28 @ 25C

VIKON CHEMICAL CO., INC.: VIKOMUL W-50D:**Unique Textile Preparation Detergent**

VIKOMUL W-50D is a unique, formulated detergent with unusual properties for removing warp size components in combination with caustic without the need for other chemicals than chelating agents. It is effective in combination with caustic (sodium hydroxide) without the need for prior enzyme or oxidative desizing. It has produced desized fabrics with a variety of sizing formulas and a wide range of weights of 100% cotton and blends which show instant absorbency and complete freedom from starch and no evidence of residual extractable wax or oil. The only fabrics which it has not brought to instant absorbency or complete freedom from starch have been heavy weight bull denims. Alternate formulas are available that will desize these fabrics with VIKOMUL and caustic only. VIKOMUL W-50D is relatively low foaming especially at the recommended saturation temperature of 180F(82C) or higher.

Properties:

Appearance: Clear liquid
Product odor: Slight
Specific gravity: 1.025
Flash Point: >212F (100C)
Solids: 46%

VIPLEX SR:**Hand-Builder for Textile Water Repellents**

VIPLEX SR is a vinyl acetate homopolymer emulsion which is an excellent hand builder for textile water repellent finishes because it has a film of high water resistance. It also forms dilute dispersions in water which are stable to substantial concentrations of electrolytes such as borax, multivalent metallic ions and quaternary compounds which coagulate many types of vinyl acetate emulsion polymers.

VIPLEX SR produces films of good clarity with some gloss. They have excellent light stability and excellent aging characteristics.

VIPLEX SR is recommended for use at concentrations of 0.5-4% in the finish bath depending on the hand required and the pickup obtained.

Typical Emulsion Properties:

Total Solids (%): 54-56
Viscosity (cps): 1800-2800
pH: 4.6-5.5
Free Monomer Content: Less than 1%
Color: White
Odor: Slight, Characteristic
Average Particle Size (app.): 1 micron
Weight/Gallon (lbs.) Emulsion: 9.1

VIKON CHEMICAL CO., INC.: VIKON FGT:

VIKON FGT is a copolymer emulsion which forms a clear, slightly elastic, flexible film on drying. The film has strong but flexible bonding properties and has high resistance to water spotting. VIKON FGT is stable to heat on aging. The emulsion is nonionic and has excellent stability under a wide variety of textile processing conditions. It is not coagulated by high salt concentrations nor by cationic softeners, nor by the catalysts which coagulate many emulsion polymers. Its properties make VIKON FGT useful for a variety of applications on textiles.

The principal textile use for VIKON FGT is a bodying or hand building agent for a variety of types of finishes. It can be used by itself to give fullness of hand without crispness and with reasonable resistance to washing. It improves tear strength and tensile strength because of its flexible bonding properties. VIKON FGT can be used in resin finishes for obtaining a full, leathery hand, free of crispness or harshness. Here again it helps both tear strength and tensile strength.

VIKON FGT is an excellent bodying agent for stain-resistant fluoro-chemical finishes producing fullness of hand without stiffness or harshness. In many cases, it actually increases the spray rating.

VIKON FGT is also a good hand builder for silicone water repellent finishes because it has essentially no effect on the spray rating and it is fully compatible with the silicone repellents and their catalysts.

VIKON FGT forms a clear, continuous film of high resistance to abrasion on fabrics and can be used for coating colored yarn fabrics for slip-covers, etc. It is also an excellent latex for making water based paints for painting awnings, tarpaulins, etc. The coating formed has high resistance to submersion under water.

VIKON FGT in Crease Resistant Finishes

VIKON FGT is effective and easily used in resin finishes because it is stable to magnesium chloride and zinc nitrate catalysts, as well as to amine hydrochloride catalysts. It is also stable to dye-fixing agents and to a variety of other materials which often cause coagulation of emulsion polymers and consequent build-up on equipment.

General Properties:

Total Solids: 54-56%
 Viscosity (cps): 1500-3000 cps
 Color: White
 Odor: Mild monomer odor
 Free Monomer (%): Less than 1.0%
 pH: 4.5-4.8
 Mechanical Stability: 20+ min.
 Average Particle Size: 1 micron
 Particle Charge: Negative
 Wet Pound Per Gallon: 9.0

VIKON CHEMICAL CO., INC.: VIKON FPB Copolymer Emulsion:

VIKON FPB is a unique copolymer emulsion in which a blend of monomers is copolymerized with vinyl acetate to yield a film which has permanent flexibility. The emulsion is nonionic and has excellent stability in textile processing.

VIKON FPB has found a number of interesting and valuable applications in the textile industry. It is an excellent additive for thermosetting resin finishes. It increases the tear and tensile strength and it adds body to the hand. VIKON FPB does not harm the crease angle and in many cases has improved it.

As a pure finish with softeners VIKON FPB increases the tensile strength markedly. It gives a fully silky hand free of harshness and boardiness and with high resistance to wash-down. As much as 25% less softener is needed with VIKON FPB than with other bodying agents.

VIKON FPB is a very effective binder in heavy starch and backfilled finishes. It does not stiffen in the way many other products do, but it makes the hand more full, leathery and flexible than it would be otherwise as well as improving the coverage. This helps to hold down pinholes or birds-eyes.

VIKON FPB is an effective base for producing a clear coating film on fabrics in making coated seat cover fabrics, etc. It can be compounded with other materials or additional plasticizers to produce these coatings.

VIKON FPB in Crease Resistant Finishes

VIKON FPB is effective at relatively low concentrations in crease resistant resin finishing formulas due to its reactivity with the thermosetting resins and due to the strong flexible film which it forms. As little as 1/2% by weight in the resin finish shows an effect on tear and tensile strength but as much as 3% is used in some formulas.

Emulsion Properties:

Total Solids: 54-56%
Viscosity: 1,00-1,400
Color: White
Odor: Slight-characteristic
Free Monomer (%): Less than 1.0%
pH: 4.0-6.5
Mechanical Stability: 20 mins.
Particle Size-Average: Less than 2 microns
Solvent Tolerance: Greater than 50 cc.
Setting Rate - Maximum: 2.0 cc.
Particle Charge: Negative
Wet Pounds Per Gallon: 9.0

WACKER SILICONES: WACKER Silicones for Textile Applications

Silicones are organo-silicon compounds in which the silicon atoms are linked together via oxygen atoms, so that a basic skeleton of silicon and oxygen units is obtained. The residual silicon valencies are neutralized by organic groups.

By varying these organic groups, the chain length, the basic structures and any branches that may be present, a large number of different silicones have been developed.

Silicones were first introduced in textile applications as:

- * water repellents,
- * sewing thread lubricants,
- * softening agents,
- * antifoam agents.

In addition, silicone products for a range of further applications have been developed in the course of time. For example:

- * coatings,
- * elastic impregnating agents,
- * fibre auxiliaries.

Textile Water Repellents:

When used as water repellents, the very marked water-repellent effect of the silicone is utilized. The active silicon agents are oriented by using special catalysts so that the optimum water-repellent effect is obtained. The textiles thus treated retain the ability to "breathe" in full.

Compared with other water-repellent agents, the silicones are distinguished by an especially soft handle and very good permanency in effect after washing and cleaning.

Applications in the textile industry usually involve treatment from the aqueous phase. In special, however, the silicones are applied using organic solvents.

Accordingly, both:

- * aqueous silicone emulsions and
- * silicone products for solvent applications as well as
- * silicone raw materials for independent formulations are available.

Recommended WACKER silicone products:

SI-FINISH WS 60E:

40% emulsion for aqueous impregnation;
multi-component system

SI-FINISH WS 70M:

single-component product for solvent applications
(including aerosol spray cans); 100%

SI-FINISH WS 63M:

raw material for emulsions, 100%

Silicone fluids AK; H-SILOXANE:

raw materials for emulsions

**WACKER SILICONES: WACKER Silicones for Textile Applications
(Continued):**

Textile Softening Agents:

Because of the specific hand effects resulting from the use of silicone fluid emulsions, silicones find a wide range of application as softening agents in textile finishing. Application is almost exclusively from the aqueous phase.

In many instances silicone softening agents are also used in durable press finish formulations in combination with crease-resistant resins and than are distinguished by a substantial improvement in the mechanical properties of the textiles in addition to the softer handle.

Recommended WACKER Silicone products:

SI-FINISH CT92E:

35% silicone emulsion, anionic

SI-FINISH CT94E:

50% silicone emulsion, nonionic

Silicone fluids AK:

raw materials for silicone emulsions

Elastic Impregnating Agents:

For some years now crosslinkable silicone emulsions have also been used to an increasing extent in textile finishing.

In addition to their high permanence after repeated washing and cleaning, these products are characterized by their resilient properties and a very pleasant, soft handle.

The "silicone elastomers", as they are called, also occupy a special place in improving the sewability of textiles.

Three-component silicone formulations (crosslinkable silicone + crosslinking agent + catalyst) are used to obtain pronounced elastic effects, but single-component products have also been introduced in the meanwhile for various areas of application.

Recommended WACKER Silicone Products:

SI-FINISH CT14E:

crosslinkable emulsion for the Foulard process; 50%;
three-component product

SI-FINISH VP1441E:

crosslinkable emulsion for the exhaustion process in the
winch; 50%;
four-component product

SI-FINISH VP1445E:

aqueous emulsion; 35%; single-component product
Silicone fluids CT:
raw materials for crosslinkable emulsions

WACKER SILICONES: WACKER Silicones for Textile Applications
(Continued):

Watertight Coating Agents:

Crosslinkable, film-forming silicone products which achieve the required effects even with relatively low coating rates (from about 10 g/m²) are used to produce watertight coatings. The viscous, spreadable compounds which have to be supplemented by a catalyst and - depending on product and formulation - a crosslinking agent, crosslink quickly when heated to form insoluble coatings resistant to washing and cleaning.

In addition to silicone solutions using organic solvents, for some time now silicone emulsions that can be thickened have been used and these are frequently used in combination with further dispersions of plastics.

Recommended WACKER silicone products:

SI-FINISH CT51L:

25% silicone solution in toluene; three-component product

SI-FINISH CT53L

22.5% silicone solution in perchloroethylene; three-component product

SI-FINISH CT54L:

30% silicone solution in xylene; three-component product

SI-FINISH CT58L:

30% silicone solution in white spirit; two-component product

SI-FINISH CT19E:

50% silicone emulsion that can be thickened

Sewing Thread Lubricants:

Sewing thread lubricants based on silicone have been tried and proven in final finishing of sewing thread to improve the sliding properties and to improve their resistance to heat. The sewability is improved, the number of thread breaks reduced and the lustre of the sewing improved.

100% products and emulsions of special silicone fluids or blends of them with wax-like substances are used. They are applied either by the godet roll method by applying them to the moving thread or by exhaustion process from diluted emulsions on thread cheeses in the dye-bath.

Recommended WACKER Silicone Products:

SI-FINISH FG85M, FG87M:

100% silicone fluids (godet roll)

SI-FINISH FG86M:

100% "hot melt" (godet roll)

SI-FINISH FG71E, FG73E:

35% silicone oil emulsions as the basis for combination products

**WACKER SILICONES: WACKER Silicones for Textile Applications
(Continued):**

Fibre Preparations:

Silicones have also gained access for various applications in fibre preparations.

Sometimes they are used to improve the processing properties of the fibres and threads treated, although they are also used for final finishing (e.g. Fiberfill finish).

Recommended WACKER silicone products:

Silicone fluids L03, VP1632, VP1633, VP1661:

water-soluble or dispersible glycol-modified silicone fluids; 100%; heat-resistant lubricants, can be rinsed out and/or over-dyed.

Silicone Fluid AK10:

silicone fluid soluble in mineral oil; 100%; low surface tension; good lubricating effect.

SI-FINISH CT90E:

Crosslinkable silicone emulsion; 50%; can be used for Fiberfill finish with crosslinking agent and catalyst.

SPINNERET SPRAY:

Heat-stable release agent and lubricant in the production of synthetic fibres.

Silicone Antifoam Agents:

Silicone antifoam agents have been tried and proven for many years in the textile industry.

On the one hand they are used as "external" foam inhibitors by adding to foam-producing processes, on the other hand they are also employed as internal foam inhibitors by incorporating them in a non-foaming finishing formulation.

- a) Antifoam agents 100%:
Oily compounds, hydrophobic, also as basic material for derivative products.
- b) Antifoam emulsions:
Water-dispersing emulsion with active contents of 5-50% with varying ionogenicity.
- c) Antifoam concentrates:
Compounds that can be diluted to produce commercial-quality emulsions; intended for overseas markets only.
- d) Self-emulsifying antifoam agents:
Water-free, spontaneously dispersing on contact with water. They are intended for immediate use.
- e) Antifoam powders as additives to powdery surfactants.

WHITE CHEMICAL CORP.: CALIBAN Flame Retardants:

Durable Flame Retardants for Textiles, Nonwovens, Adhesives, Coatings:

Water Based Systems:

CALIBAN F/R P-44:

Brominated flame retardant using antimony oxide as synergist. Effective on all natural, synthetic and blended textiles, non-wovens, paper, latexes and coatings.

CALIBAN F/R P-53:

Same as CALIBAN F/R P-44 without Antimony Oxide.

CALIBAN F/R P-66:

For polyester/cotton work clothing.

CALIBAN F/R P-88:

For 100% cotton work clothing used in the non ferrous metals industry.

CALIBAN F/R P-95:

Non-dusting aqueous dispersion of Antimony Trioxide compatible with PVC and PVDC latexes or chlorinated paraffin emulsions or dispersions.

CALIBAN F/R P-111:

For disperse dyeable fibers such as polyester or polypropylene. Applied by padding or exhausting in a dyebath.

Advantages:

Effective on all natural, synthetic and blended fibers.

Easy to apply on conventional equipment.

Non-hygroscopic and non-corrosive.

No objectionable odors or fumes.

Approved by California Fire Marshall and U.S. and NATO Armed Forces.

Non-toxic and non-carcinogenic.

Minimum effect on water and oil repellency.

Increases physical properties.

Light fastness of dyes not affected.

Compatible with a wide range of auxiliaries.

Can be applied by padding, coating, spraying, printing, etc.

Effective on:

Cotton, rayon, linen, jute, wool, silk, cellulose di and triacetate, polyester, nylon, acrylics, polypropylene and blends of these fibers.

Type of Substrates:

Woven, knitted and non-woven fabrics, carpets, paper, wood, wood products, latexes, adhesives, resins, paints, lacquers and varnishes.

WHITE CHEMICAL CORP.: CALIBAN Flame Retardants (Continued):**Durable Flame Retardants(Continued):****Water Based Systems(Continued):****Flammability Standards:**

Designed to meet applicable federal, state, local and foreign flammability standards.

Patent Position:

U.S. Patent 3,877,974	April 15, 1975
U.S. Patent 3,955,032	May 4, 1976
U.S. Patent 3,974,310	August 10, 1976
U.S. Patent 4,120,798	October 17, 1978
U.S. Patent 4,158,077	June 12, 1979
U.S. Patent 4,348,306	September 7, 1982
U.S. Patent 4,446,202	May 1, 1984
Other U.S. Patents Pending	

Foreign Patents: Australia, Belgium, Canada, East Germany, France, Great Britain, Holland, Luxemburg, Mexico, Poland, Russia and pending in other nations.

Contract Manufacture: Proprietary specialty flame retardant manufacture available.

Auxiliaries for Water Based Systems:**CALIBAN F/R P-72:**

A solid afterglow suppressant recommended for use with CALIBAN F/R P-44, P-53, P-66 when required.

CALIBAN Binder 102:

A soft acrylic latex compatible with cationic water and oil repellent for use with CALIBAN F/R P-44, P-53, P-66.

CALIBAN Binder 145:

An extremely soft, hydrophilic, acrylic latex with outstanding durability properties, for use with CALIBAN F/R P-44, P-53, P-66.

Solvent and Plastisol Systems:**CALIBAN F/R P-100:**

Flame retardant for solvent and hot melt adhesives, plastisols, lacquers, varnishes, solvent finishing of textiles, etc.

WHITE CHEMICAL CORP.: CALIBAN Flame Retardants(Continued):

Durable Flame Retardants(Continued):

Solvent and Plastisol Systems:

CALIBAN F/R P-100:

Flame retardant for solvent and hot melt adhesives, plastisols, lacquers, varnishes, solvent finishing of textiles, etc.

CALIBAN F/R P-150:

F/R P-151:

Flame retardant phosphate plasticizer combination for PVC and polyurethane foams and coatings, adhesives and solvent finishing of textiles, etc.

Additives for Plastics, Fibers and Adhesives:

CALIBAN F/R P-45:

Powder mix effective in many plastics and fibers. Recommended for hot melt adhesives and fiber spinning.

Renewable Flame Retardants:

CALIBAN ND-74:

Water soluble flame retardant for cellulosics and blends with polyester, particularly nonwovens.

CALIBAN ND-92:

Water soluble flame retardant useful for cellulosics and blends with polyester to meet the specifications of the NFPA-701 as well as Title 19 (State of California). Durable to dry cleaning.

CALIBAN ND-109:

100% active powder flame retardant for upholstery and drapery fabrics, especially cotton and rayon. Noncorrosive, high strength retention of fabrics, nonyellowing. Allows fabrics to meet the specifications set by NFPA-701 and the State of California.

WITCO CORP.: Textile Industry Surfactants:**Product:****BUBBLE BREAKER 748:**

Organic, Silicone-Free Blend
Nonionic
Liquid
Soluble in Oil, Disp. in Water
Functions: Defoaming

BUBBLE BREAKER 3056-A:

Organic, Reacted Silica Blend
Nonionic
Liquid
Disp. in Water
Functions: Defoaming/Effluent Treatment

BUBBLE BREAKER 3295:

Organic, Reacted Silica Blend
Nonionic
Liquid
Soluble in Oil
Functions: Defoaming

EMCOL 4500:

Sodium (diester) Sulfosuccinate
Anionic
Liquid
Soluble in Oil
Functions: Aqueous Systems: Dispersion/Wetting

EMCOL 4580PG:

Sodium (diester) Sulfosuccinate
Anionic
Liquid
Soluble in Oil
Functions: Solvent Systems: Detergency/Scouring

EMCOL CC-9:

Polypropoxy Quaternary Ammonium Chloride
Cationic
Liquid
Soluble In Water
Functions: Antistatic

EMCOL CC-36:

Polypropoxy Quaternary Ammonium Chloride
Cationic
Liquid
Soluble in Oil/Disp. in Water
Functions: Antistatic

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

EMCOL CC37-18:

Cocobetaine
Amphoteric
Liquid
Soluble in Water
Functions: Antistatic

EMCOL CC-42:

Polypropoxy Quaternary Ammonium Chloride
Cationic
Liquid
Soluble in Oil
Functions: Antistatic

EMCOL K-8300:

Disodium (half-ester) Sulfosuccinate
Anionic
Liquid
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Dispersion/Wetting

EMPHOS CS-1361:

Phosphate Ester of Alkylaryl Ethoxylate
Anionic
Liquid
Soluble in Oil/Soluble in Water
Functions: Lubrication
Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting
Solvent Systems: Detergency/Scouring

EMPHOS PS-220:

Phosphate Ester of Alcohol Ethoxylate
Anionic
Liquid
Soluble in Oil
Functions: Lubrication

EMPHOS PS-236:

Phosphate Ester of Alcohol Ethoxylate
Anionic
Liquid
Soluble in Water
Functions: Lubrication
Aqueous Systems: Detergency

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

EMPHOS PS-415M:

Phosphate Ester of Alcohol Ethoxylate

Anionic

Liquid

Soluble in Water

Functions: Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

EMPHOS PS-810:

Phosphate Ester of Alcohol Ethoxylate

Anionic

Liquid

Soluble in Oil

Functions: Lubrication

EMPHOS TS-230:

Phosphate Ester of Phenol Ethoxylate

Anionic

Liquid

Soluble in Water

Functions: Lubrication

WITBREAK RTC-323:

Polymeric Amine

Cationic

Liquid

Soluble in Water

Functions: Effluent Treatment

WITCAMIDE 82:

Alkanolamide

Nonionic

Liquid

Soluble in Water

Functions: Lubrication
Aqueous Systems: Dispersion/Wetting

WITCAMIDE 272:

Modified Alkanolamide

Nonionic

Liquid

Soluble in Water

Functions: Aqueous Systems: Dispersion/Wetting

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

WITCAMIDE 511:

Alkanolamide

Nonionic

Liquid

Soluble In Oil

Functions: Lubrication

Solvent Systems: Dispersion/Wetting

Oil Systems: Dispersion/Wetting

WITCAMIDE 512:

Modified Alkanolamide

Anionic/Nonionic

Liquid

Soluble in Water

Functions: Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCAMIDE 1017:

Modified Alkanolamide

Nonionic

Liquid

Soluble in Oil/Soluble In Water

Functions: Aqueous Systems: Dispersion/Wetting

WITCAMIDE 5133:

Alkanolamide

Nonionic

Liquid

Soluble in Water

Functions: Lubrication

Aqueous Systems: Dispersion/Wetting

WITCAMIDE M-3:

Alkanolamide

Nonionic

Liquid

Soluble in Water

Functions: Lubrication

Aqueous Systems: Dispersion/Wetting

WITCAMINE AL42-12:

Fatty Imidazoline

Cationic

Liquid

Soluble in Oil

Functions: Antistatic

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

WITCAMINE PA-78B:

Fatty Imidazoline Salt
Cationic
Liquid
Soluble in Oil
Functions: Antistatic
Solvent Systems: Dispersion/Wetting
Oil Systems: Dispersion/Wetting

WITCOLATE 1276:

Alcohol Ether Sulfate
Anionic
Liquid
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Dispersion/Wetting

WITCOLATE D-510:

Sodium 2-ethylhexyl Sulfate
Anionic
Liquid
Soluble In Water
Functions: Aqueous Systems: Dispersion/Wetting

WITCOLATE S1285C:

Sodium Alcohol Ether Sulfate
Anionic
Liquid
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCOLATE SE-5:

Sodium Alcohol Ether Sulfate
Anionic
Liquid
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCOMUL 1202:

Emulsifier Blend
Anionic/Nonionic
Liquid
Soluble in Water/Disp. in Oil
Functions: Dye Carrier Emulsification

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

WITCOMUL 1305:

Emulsifier Blend
Nonionic
Liquid
Soluble in Oil/Disp. in Water
Functions: Dye Carrier Emulsification

WITCOMUL 1317:

Emulsifier Blend
Nonionic
Liquid
Soluble In Oil/Disp. in Water
Functions: Dye Carrier Emulsification

WITCOMUL AM2-10C:

Surfactant Blend
Anionic/Nonionic
Liquid
Soluble in Oil/Disp. in Water
Functions: Flame Retardant Emulsification

WITCOMUL CC37-45R:

Surfactant Blend
Nonionic
Solid
Soluble In Oil/Disp. in Water
Functions: Flame Retardant Emulsification

WITCONATE 60B:

Sodium Alkylaryl Sulfonate
Anionic
Liquid
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCONATE 90 Flakes:

Sodium Alkylaryl Sulfonate
Anionic
Flake
Soluble in Water
Functions: Latex Frothing
Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCO CORP.: Textile Industry Surfactants(Continued):**Product:****WITCONATE 1260 Slurry:**

Sodium Alkylaryl Sulfonate

Anionic

Liquid

Soluble in Water

Functions: Latex Frothing

Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting**WITCONATE AOS:**

Sodium Alpha Olefin Sulfonate

Anionic

Liquid

Soluble in Water

Functions: Latex Frothing

Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting**WITCONATE P10-59:**

Amine Alkylaryl Sulfonate

Anionic

Liquid

Soluble in Oil

Functions: Solvent Systems: Detergency/Dispersion/Scouring/
Wetting

Oil Systems: Dispersion/Wetting

WITCONATE YLA:

Amine Alkylaryl Sulfonate

Anionic

Liquid

Soluble in Oil

Functions: Solvent Systems: Detergency/Dispersion/Scouring/
Wetting

Oil Systems: Dispersion/Wetting

WITCONOL 171:

Polyalkylene Glycol Ether

Nonionic

Liquid

Soluble in Water

Functions: Antistatic/Lubrication

Aqueous Systems: Detergency/Dispersion/Wetting

WITCO CORP.: Textile Industry Surfactants(Continued):

Product:

WITCONOL 172:

Polyalkylene Glycol Ether

Nonionic

Liquid

Soluble in Water

Functions: Antistatic/Lubrication

Aqueous Systems: Detergency/Dispersion/Wetting

WITCONOL 1206:

Alkyl Polyoxyethylene Glycol Ether

Nonionic

Liquid

Soluble in Water

Functions: Antistatic/Lubrication

Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCONOL 1207:

Alkyl Polyoxyethylene Glycol Ether

Nonionic

Liquid

Soluble in Water

Functions: Antistatic/Lubrication

Aqueous Systems: Detergency/Dispersion/Scouring/
Wetting

WITCONOL APM:

Propoxylated Fatty Alcohol

Nonionic

Liquid

Soluble in Oil

Functions: Oil Systems: Dispersion/Wetting

WITCONOL F26-46:

Polypropylene Glycol Fatty Acid Ester

Nonionic

Liquid

Soluble in Oil

Functions: Antistatic

Solvent Systems: Dispersion/Wetting

Oil Systems: Dispersion/Wetting

WITCO CORP.: Textile Industry Surfactants(Continued):**Product:****WITCONOL H-31A:**

Polyethylene Glycol 400 Monooleate

Nonionic

Liquid

Soluble in Oil

Functions: Solvent Systems: Detergency/Dispersion/Scouring/
Wetting

Oil Systems: Dispersion/Wetting

WITCONOL MST:

Glycerol Mono- and Distearate

Nonionic

Flake

Soluble in Oil

Functions: Antistatic

WITCONOL O:

Glycerol Mono- and Dioleate

Nonionic

Paste

Soluble in Oil

Functions: Antistatic

WITCO CORP.: SONNEBORN White Oils:

Product:

USP Mineral Oil:

KAYDOL:

Viscosity (cst @ 40C): 64-70
(SSU @ 100F): 340-355
SG 25C/25C: 0.869-.885

ORZOL:

Viscosity (cst @ 40C): 61-64
(SSU @ 100F): 320-330
SG 25C/25C: 0.869-.885

BRITOL:

Viscosity (cst @ 40C): 57-60
(SSU @ 100F): 300-310
SG 25C/25C: 0.869-.885

GLORIA:

Viscosity (cst @ 40C): 39-42
(SSU @ 100F): 200-210
SG 25C/25C: 0.859-.880

PROTOL:

Viscosity (cst @ 40C): 35-37
(SSU @ 100F): 180-190
SG 25C/25C: 0.859-.875

Light Mineral Oil, NF:

RUDOL:

Viscosity (cst @ 40C): 28-30
(SSU @ 100F): 145-155
SG 25C/25C: 0.852-.870

ERVOL:

Viscosity (cst @ 40C): 24-26
(SSU @ 100F): 125-135
SG 25C/25C: 0.849-.865

BENOL:

Viscosity (cst @ 40C): 18-20
(SSU @ 100F): 95-105
SG 25C/25C: 0.839-.855

BLANDOL:

Viscosity (cst @ 40C): 14-17
(SSU @ 100F): 80-90
SG 25C/25C: 0.839-.855

CARNATION:

Viscosity (cst @ 40C): 11-14
(SSU @ 100F): 65-75
SG 25C/25C: 0.837-.853

KLEAROL:

Viscosity (cst @ 40C): 7-10
(SSU @ 100F): 50-60
SG 25C/25C: 0.822-.833

WITCO CORP.: SONNEBORN White Oils(Continued):

Product:

Standard SONNEBORN White Oils, Technical Grade:

SEMTOL 350:

Viscosity (cst @ 40C): 64-90
(SSU @ 100F): 340-425
SG 25C/25C: 0.850-.890

SEMTOL 100:

Viscosity (cst @ 40C): 18-20
(SSU @ 100F): 95-105
SG 25C/25C: 0.839-.855

SEMTOL 85:

Viscosity (cst @ 40C): 14-17
(SSU @ 100F): 80-90
SG 25C/25C: 0.839-.855

SEMTOL 70:

Viscosity (cst @ 40C): 11-14
(SSU @ 100F): 65-75
SG 25C/25C: 0.837-.853

SEMTOL 40:

Viscosity (cst @ 40C): 4-5
(SSU @ 100F): 40-43
SG 25C/25C: 0.804-.820

White Oil Function:

Textiles:

- * Carrier
- * Conditioner
- * Extender
- * Lubricant

Typical Applications:

Synthetic fibers, knit fabrics, apparel

Industry:

Adhesives
Agriculture
Chemicals
Cleaning
Construction materials
Cordage
Cosmetics and toiletries
Electrical equipment
Food
Furniture
Packaging
Pharmaceuticals
Plastics
Surface finishes

Suppliers' Addresses

Aceto Corp.
126-02 Northern Blvd.
Flushing, NY 11368
(718)-898-2300

Air Products and Chemicals
Polymer Chemicals Division
Allentown, PA 18195
(215)-481-6799

Albright & Wilson, Inc.
P.O. Box 26229
Richmond, VA 23260-6229
(804)-752-6100

Alco Chemical Corp.
P.O. Box 5401
909 Mueller Drive
Chattanooga, TN 37406
(615)-629-1405

Alframine Corp.
72 Putnam St.
Paterson, NJ 07524
(201)-279-5334

Allied Colloids Inc.
2301 Wilroy Road
P.O. Box 820
Suffolk, VA 23434
(804)-934-3700

AluChem, Inc.
One Landy Lane
Reading, OH 45215
(513)-733-8519

American Hoechst Corp.
4331 Chesapeake Drive
P.O. Box 16267
Charlotte, NC 28216
(704)-392-6166/(800)-438-4561

Amspec
At the foot of Water St.
Gloucester City, NJ 08030
(609)-456-3930

Anedco, Inc.
10429 Koenig Road
Houston, TX 77034
(713)-484-3900

Angus Chemical Co.
2211 Sanders Road
P.O. Box 3037
Northbrook, IL 60062
(312)-498-6700

Argus Division
Pearsall Products
Witco Corp.
P.O. Box 42817
Houston, TX 77242-2817
(713)-975-5800

BASF Corp.
Chemicals Div.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000

Bercen, Inc.
1381 Cranston St.
Cranston, RI 02920
(401)-943-7400

Burlington Chemical Co., Inc.
P.O. Box 111
Burlington, NC 27215
(919)-584-0111

Capital City Products Co.
P.O. Box 569
Columbus, OH 43216-0569
(614)-299-3131

CNC Chemical Corp.
12 Dudley St.
Providence, RI 02905
(401)-751-7711

Corn Products
6500 S. Archer Rd.
Summit-Argo, IL 60501
(312)-563-2400

Croda, Inc.
183 Madison Ave.
New York, NY 10016
(212)-683-3089

Dan River Inc.
P.O. Box 261
Danville, VA 24541
(804)-799-7105

Deezee Chemical Inc.
600 Mt. Ephraim Ave.
Camden, NJ 08103
(609)-365-1212

DeSoto, Inc.
2001 North Grove
P.O. Box 2199
Fort Worth, TX 76113
(817)-625-2111

Dixco Co., Inc.
Box 6
Rochelle Park, NJ 07662
(201)-845-6000

Dock Resins Corp.
1512 West Elizabeth Ave.
Linden, NJ 07036
(201)-862-2351

Dover Chemical Corp.
P.O. Box 40
Dover, OH 44622
(212)-343-7711

Dow Corning Corp.
Midland, MI 48686-0994
(517)-496-4000/(800)-248-2481

Eastern Color & Chemical Co.
35 Livingston St.
Providence, RI 02904
(401)-331-9000

Eastman Chemicals
P.O. Box 431
Kingsport, TN 37662
(800)-EASTMAN

Exxon Co., U.S.A.
P.O. Box 2180
Houston, TX 77252-2180
(800)-44EXXON

Finetex Inc.
P.O. Box 216
Elmwood Park, NJ 07407
(201)-797-4686

Flame Control Coatings, Inc.
P.O. Box 786
4120 Hyde Park Blvd.
Niagara Falls, NY 14302
(716)-282-1399

FMC Corp.
Industrial Chemical Group
2000 Market St.
Philadelphia, PA 19103
(215)-299-6000

Gist-Brocades USA Inc.
P.O. Box 241068
Charlotte, NC 28224
(704)-527-9000

Grindsted Products, Inc.
201 Industrial Parkway
P.O. Box 26
Industrial Airport, KS 66031
(913)-764-8100/(800)-255-6837

Hart Products Corp.
173 Sussex St.
Jersey City, NJ 07302
(201)-433-6632

Henkel Corp.
Emery Group
11501 Northlake Drive
Cincinnati, OH 45249
(513)-530-7300

Henkel Corp.
Textile Chemicals
P.O. Box 34428
Charlotte, NC 28234
(704)-597-1040/(800)-634-2436

Hercules Inc.
Hercules Plaza
Wilmington, DE 19894
(302)-594-6500

Hi-Tek Polymers, Inc.
1338 Coronet Drive
P.O. Box 1740
Dalton, GA 30722-1740
(404)-259-4831

Hoechst Celanese Corp.
4331 Cheseapeake Drive
P.O. Box 16267
Charlotte, NC 28216
(704)-392-6166/(800)-438-4561

Hydrolabs'
27 E. 33 St.
Paterson, NJ 07514
(201)-345-5100

Intex Chemical, Inc.
P.O. Box 6648
Greenville, SC 29606
(803)-242-6152

Lonza Inc.
22-10 Route 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-526-7850

Merix Chemical Co.
2234 East 75th St.
Chicago, IL 60649
(312)-221-8242

Monsanto Co.
800 N. Lindbergh Blvd.
St. Louis, MO 63167
(314)-694-1000/(800)-325-4330

National Starch and Chemical Corp.
Finderne Ave.
Bridgewater, NJ 08807
(201)-685-5000

Nyacol Products, Inc.
P.O. Box 349-Megunco Road
Ashland, MA 01721
(617)-881-2220

Pearsall Products
Argus Division
Witco Corp.
P.O. Box 42817
Houston, TX 77242-2817
(713)-975-5800

Petroleum Specialties International, Inc.
221 West Grand Ave.-Suite 100
Montvale, NJ 07645
(201)-391-6200

Piedmont Chemical Industries
P.O. Box 2728
High Point, NC 27261
(919)-885-5131

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
(412)-434-3131

QO Chemicals
P.O. Box 2500
West Lafayette, IN 47906
(317)-497-6225

Rohm and Haas
Independence Mall West
Philadelphia, PA 19105
(215)-592-3000

Sandoz Chemicals
4000 Monroe Road
Charlotte, NC 28205
(704)-331-7000/(800)-631-8077

Scher Chemicals, Inc.
Industrial West, corner Styertowne Road
Allwood P.O. Box 1236
Clifton, NJ 07012
(201)-471-1300

Sentry/Custom Services Corp.
Box 193
Allamuchy, NJ 07820
(717)-421-2574

Sequa Chemicals, Inc.
One Sequa Drive
Chester, SC 29706-0070
(803)-385-5181

Shell Chemical Co.
1000 Executive Drive
West Orange, NJ 07052
(201)-325-5250

Sherex Chemical Co., Inc.
P.O. Box 646
Dublin, OH 43017
(614)-764-6500

Solem Industries
4940 Peachtree Industrial Blvd.
Norcross, GA 30071
(404)-441-1301

Spartan Flame Retardants, Inc.
345 E. Terra Cotta Ave.
P.O. Box 395
Crystal Lake, IL 60014
(815)-459-8500/(800)-435-5700

A.E. Staley Mfg. Co.
Deacatur, IL 62525
(217)-423-4411

Stepan Co.
Northfield, IL 60093
(312)-446-7500

Stockhausen, Inc.
P.O. Box 16025
2408 Doyle St.
Greensboro, NC 27406
(919)-378-9393

Sun Refining and Marketing Co.
Ten Penn Center
Philadelphia, PA 19103
(215)-977-3513/(800)-TECH REP

Sybron Chemicals Inc.
P.O. Box 125
Wellford, SC 29385
(803)-439-6333/(800)-845-7574

Synthron, Inc.
P.O. Box 1111
Morganton, NC 28655
(704)-437-8611

Ultra Adhesives Inc.
460 Straight St.
Park Station, P.O. Box 98
Paterson, NJ 07543-0098
(201)-279-1306

R.T. Vanderbilt Co., Inc.
30 Winfield St.
Norwalk, CT 06855
(203)-853-1400

Vikon Chemical Co., Inc.
P.O. Box 1520
Burlington, NC 27216
(919)-226-6331

Wacker Silicones
3301 Sutton Rd.
Adrian, MI 49221-9397
(517)-263-5711

White Chemical Corp.
660 Frelinghuysen Ave.
P.O. Box 2500
Newark, NJ 07114
(201)-621-4100/(800)-225-4226

Witco Corp.
Organics Division
1000 Convery Blvd.
Perth Amboy, NJ 08861-1932
(201)-826-7777

Witco Corp.
Sonneborn Division
520 Madison Ave.
New York, NY 10022-4236
(212)-605-3800

Chemical Name Index

Chemical Name	Trade Name	Supplier
Acrylic	REMOL	American Hoechst
Acrylic	VISCALEX	Allied Colloid
Acrylic	FLEX, SUPERKLEEN	CNC
Acrylic	ECCO RESIN	Eastern Color
Acrylic	KARA MVL	Hi-Tek
Acrylic	INTEX BINDER	Intex
Acrylic	RHOPLEX	Rohm & Haas
Acrylic	MYKON	Sequa
Acrylic	DILLMASTER	Sybron
Acrylic	SYNCOL	Allied Colloid
Acrylic acid	ECCO Anti-Migrant	Eastern Color
Acrylic acid ester	SARPIFAN	Stockhausen
Acrylic copolymer	SYNCOL, TESCO, VICOL, VISCALEX	Allied Colloid
Acrylic copolymer	CNC THICKENER	CNC
Acrylic copolymer		Finetex
Acrylic copolymer	INTEX BINDER	Intex
Acrylic copolymer	ACRYSOL	Rohm & Haas
Acrylic copolymer	PRYM	Sequa
Acrylic copolymer	CRILICON, CRILIPRINT, CRILITEX, LOW CROCK	Sybron
Acrylic ester	SARDIFAN	Stockhausen
Acrylic polymer	POLYMER 399, VICOL	Allied Colloid
Acrylic polymer	CNC ALL-AQUEOUS CLEAR BP	CNC
Acrylic polymer	HARTORESIN	Hart
Acrylic resin	ALCOSET	Allied Colloid
Acrylic/vinyl acrylic polymer	DUR-O-CRYL	National Starch
Alcohol alkoxylates, linear primary	BIO SOFT EA	Stepan
Alcohol ether sulfate	WITCOLATE	Witco
Alcohol ethoxylate	SANDOXYLATE	Sandoz
Alcohol ethoxylate, phosphate ester	EMPHOS	Witco
Alginates	SOBALG	Grindsted
Alginic acid		Grindsted
Aliphatic hydrocarbons	BURCOWET	Burlington
Aliphatic polyamine	CASSOFIX	American Hoechst
Aliphatic polypropoxylates	MAKON NF	Stepan
Alkanolamide	HARTAMIDE	Hart
Alkanolamide	WITCAMIDE	Witco
Alkanolamide, modified	WITCAMIDE	Witco
Alkyd	ECCO RESIN	Eastern Color
Alkyd resin		Finetex
Alkylaryl ethoxylate, phosphate ester	EMPHOS	Witco
Alkylaryl polyether	TRITON	Rohm & Haas
Alkylaryl polyether alcohol	TRITON	Rohm & Haas
Alkyl aryl sulfonate	LAVORAL	Stockhausen
Alkyl aryl sulphonate, amine salt	ECCOTERGE	Eastern Color
Alkylaryl sulphonate, sodium salt	ECCOTERGE	Eastern Color
Alkyl benzene sulfonate derivative	BURCOLEV	Burlington
Alkylene oxide polymer	PENTEX	American Hoechst
Alkyl Imidazolium methosulfate	CARSOSOFT	Lonza
Alkyl naphthalene sodium sulfonate	PETRO	DeSoto
Alkyl naphthalene sulfonate, sodium salt	PETRO DISPERSANT	DeSoto
Alkyl naphthalene sulfonate, sodium salt	ECCOWET LF	Eastern Color
Alkylphenyl ether sulfates	POLYSTEP B	Stepan
Alkyl phospho-sulfate	CNCOMERSE IMP	CNC
Alkyl polyglycol ether	HOSTAPUR	American Hoechst
Alkyl polyoxyethylene glycol ether	WITCONOL	Witco

Chemical Name	Trade Name	Supplies
Alkyl sulfate	LAVORAL	Stockhausen
Alkyl sulfates	POLYSTEP B	Stepan
Alpha amylase	RAPIDASE	Gist-Brocades
Alpha olefin sulfonates	POLYSTEP A	Stepan
Alumina trihydrate	H-36, H-46	Solem
Aluminum salt/wax emulsion	ECCOPEL	Eastern Color
Amide	CNC SOFT IG	CNC
Amide, substituted	ALCAMINE	Allied Colloids
Amide condensate	AVASOL, ERNALTEX	Alframine
Amide-resin	NYLOSET FINISH	Scher
Amides/quaternary ammonium blend	ALCAMINE	Allied Colloids
Amidoamine condensate	EMERY	Henkel-Emery
Amine alkylaryl sulfonate	WITCONATE	Witco
Amine hydrochloride	CNC Catalyst CC	CNC
Amine oxide	HARTOX	Hart
Amine oxide	MYKON	Sequa
Amine polycondensation product	ALCOFIX	Allied Colloids
Amine-aldehyde condensate	CASSOFIX	American Hoechst
Amino ethyl alkyl imidazoline	ANEDCO	Anedco
2-Amino-2-ethyl-1,3-propanediol		Angus
Aminohydroxy compound	JERSEY INHIBITOR	Sybron
2-Amino-2-methyl-1-propanol		Angus
Aminosilicone	ALCOSOFT	Allied Colloids
Amino silicones, modified	SILKSOFT SUPREME	Sybron
Ammonium alginate		Grindsted
Ammonium bromide	CNC PYROBAN SF	CNC
Ammonium lauryl ether sulfate	EMPICOL	Albright & Wilson
Ammonium lauryl sulfate	EMPICOL	Albright & Wilson
Ammonium nitrate	CONDENSOL A	BASF
Ammonium oleate		CNC
Ammonium polyacrylate	ACRYSOL	Rohm & Haas
Ammonium polyphosphate	AMGARD	Albright & Wilson
Amylase, bacterial	BACTOSOL	Sandoz
Amylolytic and proteolytic enzymes	CNC DESIZE EXTRA	CNC
Antimony oxide, colloidal	NYACOL	Nyacol
Antimony trioxide	KR, LTS, WHITE STAR, BLUE STAR	
	REZCAT	Amspec
Aziridine	LEVELER CPP	CNC
Benzyl sulfonate	HOSTATEX	CNC
Biphenyl	CNC DYE ASSIST N-O	American Hoechst
Biphenyl	REMOL	CNC
Biphenyl and esters		American Hoechst
Biphenyl, esters, and halogenated aromatics	INTEX CARRIER	Intex
Biphenyl, methyl-naphthalene	ACCELERIT	Finetex
Brominated compound	PYROBAN	CNC
Bromine, aliphatic and aromatic		Dover
Bromine (aromatic) and chlorine (aliphatic)		Dover
Bromo-alkane		Dover
Bromochlorinated paraffin	FYARESTOR	Pearsall
Bromochloro-hydrocarbon		Pearsall
Bromo-chloro paraffin		Dover
Butyl acid phosphate		Albright & Wilson
Butylacrylate/vinyl chlorine	HELIZARIN	BASF
Butyl benzoate		Finetex
Butyl benzoate, chlorinated benzene	ACCELERIT	Finetex
Butylbenzoate, long chain ester	ACCELERIT	Finetex

Chemical Name	Trade Name	Supplier
Butyl stearate	KESSCO	Stepan
Calcium alginate		Grindsted
Carbamates	PROTOREZ	National Starch
Carboxylated acrylic terpolymer	SOILAC	Sybron
Carboxylate polyelectrolyte, sodium salt	TAMOL	Rohm & Haas
Castor oil	MONOPOL BRILLANT-OL	Stockhausen
Castor oil alkyds	DORESCO	Dock Resins
Castor Oil ethoxylate	DESONIC	DeSoto
Castor Oil:ethylene/propylene oxides condensate	EMPILAN	Albright & Wilson
Cellulose glyoxal reactant	BERSET	Bercen
Cetyl morpholinium ethosulfate	BARQUAT	Lonza
Cetyl-stearyl alcohol	EMPILAN	Albright & Wilson
Cetyl trimethyl ammonium chloride	BARQUAT	Lonza
Chlorinated benzene	COLCAR	Allied Colloids
Chlorinated benzene butyl benzoate	ACCELERIT	Finetex
Chlorinated paraffins	PAROIL, CHLORO-FLO	Dover
Chlorinated phosphorus ester	ANTIBLAZE	Albright & Wilson
Chlorinated resin	CHLOREZ, REZ-O-SPERSE	Dover
Chlorinated solvent	ECCO SOLVENT N	Eastern Color
Chlorinated solvent	INTEX SOLVENT	Intex
Chlorinated solvents and biphenyl blend	BURCO	Burlington
Coco amide	SCHERCOMID	Scher
Cocobetaine	EMCOL	Witco
Coco hydroxyethyl imidazoline	UNAMINE C	Lonza
Coconut diethanolamide	EMPILAN	Albright & Wilson
Coconut fatty acid amine condensate	CNC DETERGENT E	CNC
Coconut monoethanolamide	EMPILAN	Albright & Wilson
Coning oil	STANTEX	Henkel
Copper acetate	FIX CU	CNC
Corn british gum		Corn Products
Corn starch		Corn Products
Corn starch	HAMACO	Staley
Corn starch, acetylated		Corn Products
Corn white dextrin		Corn Products
Cyclic phosphorus ester	ANTIBLAZE	Albright & Wilson
Decyl alcohol ethoxylate	DESONIC	DeSoto
Dextrin	MACHINE GLUE	Eastern Color
Dextrins	STACLIPSE	Staley
Dextrins, white	STADEX	Staley
Diammonium phosphate		Albright & Wilson
Diethylene triamine penta- acetic acid, calcium-sodium salt	PLEX PC	Vikon
Diethylenetriamine pentaacetic acid, pentasodium salt	KELATE	Dan River
Diethylenetriamine pentaacetic acid, pentasodium salt	BURCENE	Burlington
Diethylenetriamine pentaacetic acid pentasodium salt	POLYQUEST	CNC
Diethylenetriamine pentaacetic acid, pentasodium salt	SEQ	Vikon
Diethylenetriamine pentaacetic acid, tetrasodium salt	TETRALON	Allied Colloid
Dihydroxy-dichloro-diphenyl methane	ECCO	Eastern Color
2-Dimethylamino-2-methyl-1- propanol		Angus

Chemical Name	Trade Name	Supplies
Dimethylolalkanediol diurethane	FIXAPRET	BASF
Dimethylol-4,5-dihydroxy-ethylene urea	FIXAPRET	BASF
Dimethyloethylene urea	FIXAPRET	BASF
Dimethylol-4-methoxy-5,5-dimethylpropylene urea	FIXAPRET	BASF
Dimethylopropylene urea	FIXAPRET	BASF
Dimethylol urea, etherified	KAVRIT	BASF
Dimethyl polysiloxane	INTEX EMULSION	Intex
Diocetyl sodium sulfosuccinate	TRITON	Rohm & Haas
Diocetylsulfosuccinate, sodium salt	HOSTAPUR DOS Highly Conc.	American Hoechst
Diocetylsulfosuccinate salts	PENETRONS	Hart
Disodium (half-ester)sulfosuccinate	EMCOL	Witco
Ditallow diamido methosulfate	CARSOSOFT	Lonza
Ditallow imidazolinium methosulfate	VARISOFT	Sherex
Dodecylbenzene	TEX-WET	Intex
Dodecylbenzene sulfonic acid	TEX-WET	Intex
DTPA, penta sodium salt	PERMA KLEER	Hi-Tex
Epoxide compound	CONDENSOL II	BASF
Epoxy resin	SARPIFAN	Stockhausen
Ethoxylate	FOAM ASSIST	CNC
Ethoxylate	NEODOL	Shell Chemical
Ethoxylated alcohol	SCHERPOL	Scher
Ethoxylated alcohol mixtures	BURCOWET	Burlington
Ethoxylated alkylaryl compound	ALCOSIST	Allied Colloids
Ethoxylated amide	SCHERCOTERGE	Scher
Ethoxylated amine	ALCOSIST	Allied Colloids
Ethoxylated amine	DESOMEEN	DeSoto
Ethoxylated base	ECCO Anti-Migrant	Eastern Color
Ethoxylated compounds	ALCOPOL, ALCOSTAT, ALCOWAX	Allied Colloids
Ethoxylated condensate	ECCOPON	Eastern Color
Ethoxylated fatty acid	TRYDET	Henkel-Emery
Ethoxylated fatty acid ester	ALCOSTAT, DRAFCOL	Allied Colloids
Ethoxylated fatty alcohol	DISPEX	Allied Colloids
Ethoxylated lauryl alcohol	TRYCOL	Henkel-Emery
Ethoxylated linear alcohol	TRITON	Rohm & Haas
Ethoxylated linear alcohol	SULFANOLE	Sequa
Ethoxylated mixed rosin and fatty acids	TRYDET	Henkel-Emery
Ethoxylated stearate	NAPSOFT, SCROOP	CNC
Ethoxylated tall oil	TRYDET	Henkel-Emery
Ethoxylated vegetable oil	EMERLUBE	Henkel-Emery
Ethylene diamine tetracetic acid	TETRALON	Allied Colloids
Ethylene diamine tetracetic acid (EDTA)	ZEEQUEST	Deezee
Ethylene diamine tetracetic acid	SEQ	Vikon
Ethylene diamine tetracetic acid salts	KALEX	Hart
Ethylene diamine tetracetic acid	DEIONIZER N	CNC
Ethylene diamine tetracetic acid (EDTA), sodium salt	GEMTEX	Finetex
Ethylene diamine tetracetic acid	TETRALON	Allied Colloids
Ethylenediamine tetracetic acid, tetrasodium salt	BURCENE 100	Burlington
Ethylene diamine tetracetic acid, tetrasodium salt	KELATE	Dan River
Ethylene diamine tetracetic acid, tetrasodium salt	PERMA KLEER	Hi-Tek

Chemical Name	Trade Name	Supplier
Ethylene ether condensate	TEX-WET	Intex
Ethylene oxide condensate	BURCO	Burlington
Ethylene oxide condensate	PAL 500, SCROOP B	CNC
Ethylene urea and melamine methylation product	FIXAPRET	BASF
Ethylene urea formaldehyde resin-modified	REZ K	CNC
Ethylene-vinyl acetate polymer	DUR-O-SET	National Starch
Ethylene-vinyl chloride	AIRFLEX	Air Products
Ethylene-vinyl chloride copolymer	AIRFLEX	Air Products
Fatty acid amide	ALCAMINE	Allied Colloids
Fatty acid amides	HYMOLONS	Hart
Fatty acid amine and silicone blend	ALCOLUBE	Allied Colloids
Fatty acid amine condensate	PAL AN	CNC
Fatty acid condensate	SOFTYNE	Hart
Fatty acid condensation product	FIBRAMOLL	American Hoechst
Fatty acid ester	LEOMIN	American Hoechst
Fatty acid ester	VELVAMINE	Hi-Tek
Fatty acid hydroxy ethyl imidazoline	ANEDCO AC-164	Anedco
Fatty acid polyglycol ester	EMULSIFIER EL, REMOL	American Hoechst
Fatty acids:source oil:coconut	CAPITAL	Capital
Fatty acids:source oil:soya	CAPITAL	Capital
Fatty acids:source oil:mixed	CAPITAL	Capital
Fatty alcohol/ethylene oxide condensate	LEVELER 45	CNC
Fatty alcohol sulfates	STEPANOL	Stepan
Fatty amide	COLSOL, SCHERCOMID	Scher
Fatty amide	J SOFT	Sybron
Fatty amide blend	REGINOL	Hart
Fatty amides and cationic poly- ethylenes blend	CINSOFT	Stockhausen
Fatty amide condensate	ECCOTERGE	Eastern Color
Fatty amide condensate wax	ECCO WAX	Eastern Color
Fatty amido quaternary	BURCOVEL C	Burlington
Fatty amine	HYSOFT	Hi-Tek
Fatty amine	SCHERCOTARDER	Scher
Fatty amine condensates	ANALON, SYNTHO	Hart
Fatty ester	MYKON	Sequa
Fatty ester ethoxylate	SCHERCOLUBE 707	Scher
Fatty esters and emulsifiers blend	NAPSCROOP	Sybron
Fatty ethoxylate polyester	BURCOLEV	Burlington
Fatty glyceride blend	MYKON 122	Sequa
Fatty imidazoline	WITCAMINE	Witco
Fatty imidazoline salt	WITCAMINE	Witco
Fatty taurates	TERGENOLS	Hart
Fluor-carbon resin	ESTARFIN	Stockhausen
Fluorochemical	ARIDRY, AQUAFILM, AQUATHANE, FLUOROTEX	CNC
Fluoropolymer	SEQUAPEL	Sequa
Formaldehyde reactant	REZ COUPLER	Eastern Color
Formamidine sulfinic acid	CINCLEAR T	Stockhausen
Formamine compound	ANTIFUME	CNC
Gelatin	BONDEX	Finetex
Glycerol dioleate	EMEREST	Henkel-Emery
Glycerol mono- and dioleate	WITCONOL O	Witco
Glycerol monoleate	EMEREST	Henkel-Emery
Glycerol monoleate	KESSCO	Stepan
Glycerol mono- and distearate	WITCONOL	Witco

Chemical Name	Trade Name	Supplier
Glycerol monostearate	SOFTENER	Dan River
Glycerol monostearate	EMEREST	Henkel-Emery
Glycerol monostearate	KESSCO	Stepan
Glycerol monostearate and other fatty esters blend	CINSOFT	Stockhausen
Glycerol trioleate (GTO)	EMEREST	Henkel-Emery
Glycol derivative	SOFT	CNC
Glycol/mineral oil	ECCOLUBE	Eastern Color
Glyoxal	BERSET	Bercen
Glyoxal	PERMAFRESH LF-24	Sequa
Glyoxal based resin	CASSURIT	American Hoechst
Glyoxal based resin	CASSURIT	Hoechst Celanese
Glyoxal/carbamate resin	PROX	Synthron
Glyoxal reactant	FIXAPRET CPF71	BASF
Glyoxal reactant	PERMA SET	Hi-Tek
Glyoxal reactant	NYLITE, PROTOREZ, PROTOCOL C	National Starch
Glyoxal reactant	PERMAFRESH	Sequa
Glyoxal reactant		Sybron
Glyoxal reactant resin	ECCO REZ GLF	Eastern Color
Glyoxal resin	REZ	CNC
Glyoxal resin	Finish	Hart
Glyoxal resin, modified	DANSET	Dan River
Glyoxal resin, modified	PROX	Synthron
Guar	PROGACYL	Hi-Tek
Gums	ETHYLEX	Staley
Gums and starch	WEIGHTER PM	Sybron
Halogen/antimony pentoxide blends	NYACOL	Nyacol
HEEDTA, trisodium salt	PERMA KLEER	Hi-Tek
Hydrated Alumina		AluChem
Hydrocarbon	ALCOWAX, COLCAR, DEFOAMER DS	Allied Colloids
Hydrocarbon	HERCULES DEFOAMER	Hercules
Hydrocarbon	WARCO	Sequa
Hydrocarbon and Waxes	INTEX DEFOAMER	Intex
Hydroxyethyl ethylene diamine		
triacetic acid, trisodium salt	KELATE	Dan River
Hypophosphorous acid		Albright & Wilson
Imidazolidinone	PERMAFRESH	Sequa
Imidazoline derivative	HYSOFT TO	Hi-Tek
Isobutyl stearate	KESSCO	Stepan
Isooctyl acid phosphate		Albright & Wilson
Isopropyl myristate	KESSCO	Stepan
Isopropyl palmitate	KESSCO	Stepan
Latex	ECCOBRITE SPECIAL FIRE RETARDANT AUXILIARY 5302	
Latex	SARPIFAN	Eastern Color
Lauryl diethanolamide	EMPILAN	Stockhausen
Magnesium alginate		Albright & Wilson
Magnesium chloride	CASSURIT	Grindsted
Magnesium chloride	CATALYST W	American Hoechst
Magnesium chloride	CASSURIT	Eastern Color
Magnesium chloride	INTEX CATALYST	Hoechst Celanese
Magnesium chloride	CATALYST	Intex
Magnesium chloride		Sequa
Magnesium chloride hexahydrate	CATALYST MC	Sybron
Magnesium salt	CATALYST LCN	Dan River
Melamine derivative	KAURIT	Dan River
Melamine derivative	PERMAFRESH	BASF
Melamine formaldehyde	PADDING EMULSION AWK	Sequa
		CNC

Chemical Name	Trade Name	Supplier
Melamine formaldehyde resin	BERSET	Bercen
Melamine formaldehyde resin	MEL	CNC
Melamine formaldehyde resin	ECCO REZ	Eastern Color
Melamine formaldehyde resin, methylated	BERSET	Bercen
Metallic salt and paraffin wax	ESTARFIN	Stockhausen
Methylated urea formaldehyde resin, cyclic	ECCO REZ	Eastern Color
Methoxy polyethylene glycol ester	EMERY	Henkel-Emery
Methylated glyoxol-urea-formaldehyde	INTEX REACTANT	Intex
Methylated melamine, modified	RESIN GFL	Sybron
Methylated melamine formaldehyde resin		Sybron
Methylated thiourea formaldehyde condensate	RESIN CNX Special	Sybron
Methylated UF resin	JESCO	Sybron
Methyl bis(hydrogenated tallow amido ethyl)-2-hydroxyethyl ammonium chloride	INCROSOFT	Croda
2,2'-Methylenebis(4-chlorophenol)	ECCO	Eastern Color
Methyl methacrylate/vinyl-acrylic	PERMALOFT	Sequa
Methylolated triazinone	FIXAPRET	BASF
Methylol stearamide	ARIDRY	CNC
Methylthiourea	FLAMEGARD	Sybron
Mineral oil	ECCOSOL	Eastern Color
Mineral oil, light	BENOL, BLANDOL, CARNATION, ERVOL, KLEARUL, RUDOL	Witco-Sonneborn
Mineral oil, USP	BRITOL, GLORIA, KAYDOL, ORZOL, PROTOL	Witco-Sonneborn
Monoammonium phosphate	HARTOFIX, REGINOL	Albright & Wilson Hart
Naphthalene condensate	TAMOL	Rohm & Haas
Naphthalene-formaldehyde condensate, sodium salt	STOKORON	Stockhausen
Naphthalene sulphonate	BURCO Dispersant,	Burlington
Naphthalene sulfonate, sodium salt	BURCOSPERSE	Exxon
Naphthenic oils	TELURA	Sun Refining
Naphthenic oils	SUNTHENE	Scher
Natural oil	LUBRISOL	Scher
Natural oil ester	SCHERSOFTOIL	
Nitrilotriacetic acid, trisodium salt	PERMA KLEER	Hi-Tek
Nonoxynol	MAKON	Stepan
Nonyl phenol ethoxylate	DESONIC	DeSoto
Nonylphenol polyethoxylates	MAKON	Stepan
Nonylphenoxy polyethoxy ethanol	TRITON	Rohm & Haas
Nylon	NYLON, NYSIST	Eastern Color
Octyl palmitate	KESSCO	Stepan
Octyl phenol ethoxylate	DESONIC	DeSoto
Octyl phenoxy polyethoxy ethanol	TRITON	Rohm & Haas
Octyl phenyl acid phosphate		Albright & Wilson
Oils, highly saturated	SUNPAR	Sun Refining
Oleyl hydroxyethyl imidazoline	UNAMINEO	Lonza

Chemical Name	Trade Name	Supplier
Organic phosphate ester	TEX-WET	Intex
Organic phosphate ester salt	TEX-WET	Intex
Organic phosphate reaction product	ECCO FLAMEPROOF	Eastern Color
Organic phosphorus nitrogen condensate	FLAMEGARD	Sybron
Organopolysiloxane		Dow Corning
Organo-silicone	SYNTHASIL	Piedmont Chemical
Oxy-alkylation product	SILIGEN	BASF
Paraffinic blends	RAYONOL	Hart
Paraffinic oils	TELURA	Exxon
Paraffin wax	ALCOLUBE	Allied Colloids
Paraffin wax	PERSISTOL, TEXTILE WAX I	BASF
Paraffin wax	TALLOFIN	Stockhausen
Paraffin wax containing aluminum salt	RAMASIT	BASF
Paraffin wax containing zirconium salt	PERSISTOL F	BASF
PEG 200 dilaurate	EMEREST	Henkel-Emery
PEG 400 dilaurate	EMEREST	Henkel-Emery
PEG 400 dioleate	EMEREST	Henkel-Emery
PEG 600 dioleate	EMEREST	Henkel-Emery
PEG 400 distearate	EMEREST	Henkel-Emery
PEG 200 monoisostearate	EMEREST	Henkel-Emery
PEG 400 monoisostearate	TRYDET	Henkel-Emery
PEG 200 monolaurate	EMEREST	Henkel-Emery
PEG 300 monolaurate	EMEREST	Henkel-Emery
PEG 400 monolaurate	EMEREST	Henkel-Emery
PEG 600 monolaurate	EMEREST	Henkel-Emery
PEG 200 monooleate	EMEREST	Henkel-Emery
PEG 300 monooleate	EMEREST	Henkel-Emery
PEG 400 monooleate	EMEREST	Henkel-Emery
PEG 600 monooleate	EMEREST	Henkel-Emery
PEG 4000 monooleate	EMEREST	Henkel-Emery
PEG 6000 monooleate	EMEREST	Henkel-Emery
PEG 300 monopelargonate	EMEREST	Henkel-Emery
PEG 400 monopelargonate	EMEREST	Henkel-Emery
PEG 400 monostearate	EMEREST	Henkel-Emery
PEG 600 monostearate	EMEREST	Henkel-Emery
PEG 1000 monostearate	EMEREST	Henkel-Emery
PEG 400 sesquioleate	EMEREST	Henkel-Emery
Pentaerythritol tetracaprylate/caprate	KESSCO	Stepan
Perchloroethylene	DYCAR	Hart
Peroxygen compound	BURCOPOWER	Burlington
Phenol ethoxylate, phosphate ester	EMPHOS TS-230	Witco
Phenyl acid phosphate		Albright & Wilson
Phosphate chemicals	MSP, DSP, TSP-X, TSPP, STPP, SHMP	FMC
Phosphated alcohol	WET CP	CNC
Phosphated alcohol	TEX-WET	Intex
Phosphated alcohol blends	BURCO	Burlington
Phosphate ester	ALCOPOL	Allied Colloids
Phosphate ester	DISPERSION PE	CNC
Phosphate ester	DESOPHOS	DeSoto
Phosphate ester	ACRILEV, FINDET	Finetex
Phosphate ester	ALKYLENE, ANTISTAT T	Hart
Phosphate ester	PROTE-PON	Synthron
Pine oil & red oil soap blend	HARTOPEN	Hart
POE (5) castor oil	TRYLOX	Henkel-Emery
POE (16) castor oil	TRYLOX	Henkel-Emery

Chemical Name	Trade Name	Supplier
POE (25) castor oil	TRYLOX	Henkel-Emery
POE (30) castor oil	TRYLOX	Henkel-Emery
POE (36) castor oil	TRYLOX	Henkel-Emery
POE (40) castor oil	TRYLOX	Henkel-Emery
POE (200) castor oil	TRYLOX	Henkel-Emery
POE (10) coco amine	TRYMEEN	Henkel-Emery
POE (4) decyl alcohol	TRYCOL	Henkel-Emery
POE (5) decyl alcohol	TRYCOL	Henkel-Emery
POE (6) decyl alcohol	TRYCOL	Henkel-Emery
POE (8) dinonylphenol	TRYCOL	Henkel-Emery
POE (150) dinonylphenol	TRYCOL	Henkel-Emery
POE (16) hydrogenated castor oil	TRYLOX	Henkel-Emery
POE (25) hydrogenated castor oil	TRYLOX	Henkel-Emery
POE (4) lauryl alcohol	TRYCOL	Henkel-Emery
POE (8) lauryl alcohol	TRYCOL	Henkel-Emery
POE (12) lauryl alcohol	TRYCOL	Henkel-Emery
POE (23) lauryl alcohol	TRYCOL	Henkel-Emery
POE (1) nonylphenol	TRYCOL	Henkel-Emery
POE (4) nonylphenol	TRYCOL	Henkel-Emery
POE (5) nonylphenol	TRYCOL	Henkel-Emery
POE (6) nonylphenol	TRYCOL	Henkel-Emery
POE (7) nonylphenol	TRYCOL	Henkel-Emery
POE (9) nonylphenol	TRYCOL	Henkel-Emery
POE (10) nonylphenol	TRYCOL	Henkel-Emery
POE (11) nonylphenol	TRYCOL	Henkel-Emery
POE (12) nonylphenol	TRYCOL	Henkel-Emery
POE (13) nonylphenol	TRYCOL	Henkel-Emery
POE (15) nonylphenol	TRYCOL	Henkel-Emery
POE (20) nonylphenol	TRYCOL	Henkel-Emery
POE (30) nonylphenol	TRYCOL	Henkel-Emery
POE (40) nonylphenol	TRYCOL	Henkel-Emery
POE (50) nonylphenol	TRYCOL	Henkel-Emery
POE (100) nonylphenol	TRYCOL	Henkel-Emery
POE (150) nonylphenol	TRYCOL	Henkel-Emery
POE (30) octylphenol	TRYCOL	Henkel-Emery
POE (40) octylphenol	TRYCOL	Henkel-Emery
POE (10) oleic acid	TRYDET	Henkel-Emery
POE (20) oleyl alcohol	TRYCOL	Henkel-Emery
POE (23) oleyl alcohol	TRYCOL	Henkel-Emery
POE (30) oleyl amine	TRYMEEN	Henkel-Emery
POE (20) sorbitan monolaurate	EMSORB	Henkel-Emery
POE (5) sorbitan monooleate	EMSORB	Henkel-Emery
POE (20) sorbitan monooleate	EMSORB	Henkel-Emery
POE (3) sorbitan monostearate	EMSORB	Henkel-Emery
POE (4) sorbitan monostearate	EMSORB	Henkel-Emery
POE (20) sorbitan monostearate	EMSORB	Henkel-Emery
POE (16) sorbitan trioleate	EMSORB	Henkel-Emery
POE (20) sorbitan trioleate	EMSORB	Henkel-Emery
POE (16) sorbitan tristearate	EMSORB	Henkel-Emery
POE (20) sorbitol	TRYLOX	Henkel-Emery
POE (40) sorbitol hexaoleate	TRYLOX	Henkel-Emery
POE (60) sorbitol hexaoleate	TRYLOX	Henkel-Emery
POE (5) stearic acid	TRYDET	Henkel-Emery
POE (7) stearic acid	TRYDET	Henkel-Emery
POE (8) stearic acid	TRYDET	Henkel-Emery
POE (40) stearic acid	TRYDET	Henkel-Emery
POE (50) stearic acid	EMEREST	Henkel-Emery
POE (20) stearyl alcohol	TRYCOL	Henkel-Emery
POE (50) stearyl amine	TRYMEEN	Henkel-Emery
POE (8) tallow amine	TRYMEEN	Henkel-Emery
POE (15) tallow amine	TRYMEEN	Henkel-Emery

Chemical Name	Trade Name	Supplier
POE (20) tallow amine	TRYMEEN	Henkel-Emery
POE (25) tallow amine	TRYMEEN	Henkel-Emery
POE (40) tallow amine	TRYMEEN	Henkel-Emery
POE (15) tallow propylene diamine	TRYMEEN	Henkel-Emery
POE (3) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (6) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (8) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (9) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (11) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (12) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (14) tridecyl alcohol	TRYCOL	Henkel-Emery
POE (18) tridecyl alcohol	TRYCOL	Henkel-Emery
Polyacrylate	PERAPRET	BASF
Polyacrylate	GOMMEX	Synthron
Polyacrylic	ALCOPRINT	Allied Colloids
Polyacrylic	MIROX	Stockhausen
Polyacrylic acid	SYNCOL	Allied Colloids
Polyacrylic acid (sodium salt)	SOLIDOKOLL	American Hoechst
Polyalkylene glycol ether	WITCONOL	Witco
Polyamide derivative	LUROTEX	BASF
Polyamide-epichlorohydrin resin	HERCOSETT	Hercules
Polyamine	ASTON	Hi-Tek
Polyamine condensate	CASSULFON	American Hoechst
Polyaminocarboxylic salt	KALEX	Hart
Polycondensate, linear	EGANAL	American Hoechst
Polycondensation product	ALCOFIX	Allied Colloids
Polycondensation product, high molecular weight	ALCOSIST	Allied Colloids
Polydiorganosiloxane		Dow Corning
Polyester	DORESCO	Dock Resins
Polyester	INTEX CARRIER	Intex
Polyester resin		Finetex
Polyether	SILIGEN, TEXAPRET, TEXTILE WAX W	BASF
Polyether blend	TERGITEX	Scher
Polyethoxylated fatty acid	ECCOTERGE	Eastern Color
Polyethylene	ALCOLUBE	Allied Colloids
Polyethylene	PERAPRET	BASF
Polyethylene	BURCOSOFT HDP	Burlington
Polyethylene	POLYSOFT	CNC
Polyethylene	SOFTENER	Dan River
Polyethylene	ZEESOFT	Deezee
Polyethylene	ECCOSOFT	Eastern Color
Polyethylene	SOFTOLENE	Hart
Polyethylene	CHEMCOLOFT	Hi-Tek
Polyethylene	HYDROPOL, HYDROSOFT	Hydrolabs
Polyethylene	INTEX SOFTENER, TEX-SOFT	Intex
Polyethylene	POMOLUBE	Piedmont Chemical
Polyethylene	POLYSOFT CA	Scher
Polyethylene	MYKON	Sequa
Polyethylene	FOAMSOFT, POLYSOFT, TANASOFT	Sybron
Polyethylene, carboxylated	MYKON	Sequa
Polyethylene glycol esters	KESSCO	Stepan
Polyethylene glycol ester, sulfated	LEVELER JH	CNC
Polyethylene glycol esters of fatty acid	ALCOLUBE	Allied Colloids
Polyethylene glycol 400 monooleate	WITCONOL	Witco
Polyglycol ester	REMOL	American Hoechst
Polyglycol ester	BURCO ELA	Burlington
Polyglycol ether	HOSTAPUR, REMOL	American Hoechst

Chemical Name	Trade Name	Supplier
Polyglycol mono-oleate	SOFT SR	CNC
Polyhydrocarboxylic acid salt	KALEX	Hart
Polymeric alcohol blend	FINISH	Hart
Polymeric blend	HYSOFT	Hi-Tek
Polymethyl naphthalene sulphonate sodium salt	PROTE-SOL	Synthron
Polyolefin	MYKON	Sequa
Polypropoxy quaternary ammonium chloride	EMCOL	Witco
Polypropylene glycol fatty acid ester	WITCONOL	Witco
Polysiloxane	LEOMIN	American Hoechst
Polysiloxane	BURCO	Burlington
Polysiloxane	SANDOPERM	Sandoz
Polyurethane	REZTHANE	CNC
Polyurethane	FIXAMIN	Stockhausen
Polyvinyl acetate	PERAPRET VA	BASF
Polyvinyl acetate	BURCO	Burlington
Polyvinyl acetate		CNC
Polyvinyl acetate	DANFIRM	Dan River
Polyvinyl acetate	APPRETAN	Hoechst Celanese
Polyvinyl acetate	ESTEKOLL, SARPIFAN	Stockhausen
Polyvinyl acetate	EDGEGUM	Sybron
Polyvinyl acetate/acrylic copolymer	RESIN 771	Sybron
Polyvinyl acetate homopolymer	VINAC	Air Products
Polyvinyl acetate homopolymer	KARA MUL	Hi-Tek
Polyvinyl acetate homopolymer	HYDROMER	Hydrolabs
Polyvinyl acetate homopolymer	TEX-WET	Intex
Polyvinyl acetate homopolymer	CATOMER	Sybron
Polyvinyl alcohol	VINOL	Air Products
Polyvinyl alcohol	COLLASYN	Allied Colloids
Polyvinyl alcohol	VINAROL	American Hoechst
Polyvinyl alcohol	ECCO FINISH	Eastern Color
Polyvinyl propionate	PERAPRET	BASF
Poly(vinyl pyrrolidone)		Dan River
Potassium alginate		Grindsted
Propoxylated fatty alcohol	WITCONOL	Witco
Proteinaceous compound	ECCOGEL F	Eastern Color
PVA emulsion	HARTORESIN	Hart
Quaternary ammonium bromide	ANTISTAT #2	CNC
Quaternary ammonium compound	ALCAMINE, ALCOSIST	Allied Colloids
Quaternary ammonium compound	ANTISTAT N, DYE ASSIST, RETARDER	Hart
Quaternary ammonium compound	ADOGEN	Sherex
Quaternary base	RETARDER	Eastern Color
Quaternary compound	INCROSOFT	Croda
Quaternary compound		Hi-Tek
Quaternary fatty acid derivative	LEOMIN	American Hoechst
Quaternary fatty derivatives	ASTON	Hi-Tek
Quaternized condensation polymer	ALCOSTAT	Allied Colloids
Silica, colloidal	TEX-WET	Intex
Silica, colloidal	NYACOL	Nyacol
Silica, colloidal	DRITON	Sybron
Silica, modified	J SLIP NS-77	Sybron
Silica blend, reacted	BUBBLE BREAKER	Witco
Silicate	SILIGEN	BASF
Silicic acid	LURAPRET	BASF
Silicone	DEFOAMER	Allied Colloids
Silicone	ANTIFOAM, ARIDRY, SOFT S, SUPERSOFT	CNC

Chemical Name	Trade Name	Supplier
Silicone	SOFTENER	Dan River
Silicone	ZEEDEFOAM, ZEELUBE, ZEENAP	Deezee
Silicone	ECCO Defoamer	Eastern Color
Silicone	ALBON	Finetex
Silicone	DEFOAMER S	Hart
Silicone	FOAMEX, REPEL-O-TEX, VELVAMINE	Hi-Tek
Silicone	BURST, HYDRODEFOAM, HYDROLAST, HYDRONAP, HYDROSOFT	Hydrolabs
Silicone	INTEX DEFOAMER	Intex
Silicone	POMOLUBE, SYNTHASIL	Piedmont Chemical
Silicone	HYDROPRUF 200	Sandoz
Silicone	NORANE SILICONE	Sequa
Silicone	CAREFREE, SILKSOFT	Sybron
Silicone	PROX-AMINE	Synthron
Silicone	SI-FINISH, SILICONE FLUIDS AK, H-SILOXANE SPINNERET SPRAY	Wacker
Silicone, modified	ANTISTICK	CNC
Silicone, modified	MOUSSEX	Synthron
Silicone-elastomer	POLYSTABIL, SEBOSAN	Stockhausen
Silicone elastomer	PROX-AMINE	Synthron
Silicone-ethylene oxide copolymer		Dow Corning
Silicone glycol polydimethyl siloxane and silica blend	DEFOAMER 544-C	CNC
Silicone polymer		Dow Corning
Silicone resin	RANEOFF	Eastern Color
Siloxane	INTEX SIZE	Intex
Sodium alcohol ether sulfate	TEX-WET	Intex
Sodium alcohol ether sulfate	WITCOLATE	Witco
Sodium alginate		Grindsted
Sodium alkylaryl polyether sulfonate	TRITON	Rohm & Haas
Sodium alkylaryl sulfonate	HARTOFOLS	Hart
Sodium alkylaryl sulfonate	WITCONATE	Witco
Sodium alpha-olefin sulfonate	BIO TERGE	Stepan
Sodium alpha-olefin sulfonate	WITCONATE	Witco
Sodium carbonate peroxyhydrate	BURCOWITE	Burlington
Sodium chlorite		American Hoechst
Sodium chlorite		Hoechst Celanese
Sodium chlorite, modified		CNC
Sodium (diester) sulfosuccinate	EMCOL	Witco
Sodium di(2-ethylhexyl)sulfosuccinate		
Sodium dihydroxy ethyl glycine	WETTER	Dan River
Sodium dioctyl sulfosuccinate	SOLON Fe SPECIAL	Eastern Color
Sodium dioctyl sulfosuccinate	ALCOPOL	Allied Colloids
Sodium dioctyl sulfosuccinate	KARA WET DOSS	Hi-Tek
Sodium dioctyl sulfosuccinate	TEX-WET	Intex
Sodium dodecylbenzene sulfonates	BIO SOFT D, NACCONOL	Stepan
Sodium 2-ethylhexyl sulfate	WITCOLATE	Witco
Sodium glucoheptonate	KELATE	Dan River
Sodium glucoheptonate	PERMA KLEER	Hi-Tek
Sodium hydrosulphite blend	BURCO REDUCT I	Burlington
Sodium hydroxide		PPG
Sodium lauryl ether sulfate	EMPICOL	Albright & Wilson
Sodium lauryl sulfate	EMPICOL	Albright & Wilson
Sodium lauryl sulfate	HARTENOL	Hart
Sodium-N-methyl taurate derivatives	TERGENOL	Hart
Sodium polyacrylate	ALCOGUM	Alco
Sodium silicate	ASM 1.2	Dan River

Chemical Name	Trade Name	Supplier
Sodium xylene sulfonate	TEX-WET	Intex
Sorbitan diisostearate	EMSORB	Henkel-Emery
Sorbitan monoisostearate	EMSORB	Henkel-Emery
Sorbitan monolaurate	EMSORB	Henkel-Emery
Sorbitan monooleate	EMSORB	Henkel-Emery
Sorbitan monopalmitate	EMSORB	Henkel-Emery
Sorbitan monostearate	EMSORB	Henkel-Emery
Sorbitan sesquioleate	EMSORB	Henkel-Emery
Sorbitan trioleate	EMSORB	Henkel-Emery
Soya oil alkyd resin	DORESCO	Dock Resins
Starch	ECCO FINISH	Eastern Color
Starch	STALEY, STARAMIC	Staley
Starch derivatives	JERSEY WT	Sybron
Stearamide	ALCAMINE	Allied Colloids
Stearic sulphosuccinate	SOFTENING AGENT SME	Allied Colloids
Stearyl hydroxyethyl imidazoline	UNAMINE S	Lonza
Styrene-acrylic polymer	SUNCRYL	Sequa
Styrene butadiene latex, carboxylated	PAD BINDER	CNC
Styrene/vinyl acrylic polymer	PERMALOFT	Sequa
Sulfates and sulphonates blend	ALCOPOL	Allied Colloids
Sulfated ester blend	ALCOSIST	Allied Colloids
Sulfated esters	OVOFOL	Hart
Sulfated oil	HARTEX	Hart
Sulfated organic ester	ECCO, ECCOWET	Eastern Color
Sulfonate	CORDON	Finetex
Sulfonated castor oil	CORDON	Finetex
Sulfonated ester	DUOFOL	Hart
Sulfonated ester	INTEX WETAID	Intex
Sulfonated naphthalene-formalde- hyde condensate, sodium salt	PETRO DISPERSANT	DeSoto
Sulfonated synthetic sperm oil	CORDON	Finetex
Sulfonated tall oil	CORDON	Finetex
Sulfonic acid, ammonium salt	QUIKSET P	CNC
Sulfonic acid formaldehyde condensation product	SOLEGAL	American Hoechst
Sulfosuccinate	GEMTEX	Finetex
Sulfosuccinate	PENETRONS	Hart
Sulfosuccinate	SCHERCOWET	Scher
Tall oil hydroxyethyl imidazoline	UNAMINE T	Lonza
Tallow imidazolinium methosulfate	CARSOSOFT	Lonza
Tannic acid	BURCO	Burlington
Tetrahydrofurfuryl alcohol	THFA	QO Chemicals
Tetrakis(hydroxymethyl) phos- phonium chloride	RETARDOL	Albright & Wilson
Tetrakis(hydroxymethyl) phospho- nium chloride-urea precondensate	PROBAN	Albright & Wilson
Tetrakis(hydroxymethyl) phos- phonium sulfate	RETARDOL	Albright & Wilson
Tetra-sodium EDTA	OLON CONC.	Eastern Color
Tetrasodium ethylenediamine tetraacetic acid	KELATE	Dan River
Tetrasodium ethylenediamine tetraacetic acid	SODYECO SULFALOX	Sandoz
Thiourea dioxide	BURCO TDO	Burlington
Thiourea dioxide	THIOX	Hydrolabs
Thiourea formaldehyde resin		Sybron
Titanium dioxide	LIGHT DULLER CA	CNC
Titanium dioxide		Hart
Titanium dioxide	ECCOBRITE WHITE	Eastern Color
Titanium dioxide	LIGHT DULLER NF	Sybron

Chemical Name	Trade Name	Supplier
Titanous sulfate solution	STRIPPER TS	Sandoz
Trichloroethylene	INTEX CHLOROSOLV	Intex
Tridecyl alcohol ethoxylate	DESONIC	DeSoto
Triethanolamine lauryl sulfate	EMPICOL	Albright & Wilson
Triglycerol diisostearate	EMEREST	Henkel-Emery
Trimethylolpropane tricaprilate/ caprate	KESSCO	Stepan
Trimethylolpropane tripelargonate	EMERY	Henkel-Emery
Tris(hydroxymethyl)-amino- methane	TRIS AMINO	Angus
U-F resin	HARTORESIN	Hart
Urea-formaldehyde	REZ TLG	CNC
Urea formaldehyde	RESIN H	Sybron
Urea-formaldehyde compound	KAURIT, TEXAPRET	BASF
Urea formaldehyde condensate	DANSET	Dan River
Urea formaldehyde condensate	RESIN PLP	Finetex
Urea formaldehyde resin	PROX	Synthron
Vinyl	INTEX PLASTISOL	Intex
Vinyl acetate-acrylic copolymer	SUNCRYL	Sequa
Vinyl acetate-acrylic polymer	FLEXBOND	Air Products
Vinyl acetate copolymer	SUNCRYL	Sequa
Vinyl acetate-ethylene polymer	AIRFLEX	Air Products
Vinyl acetate polymer	DUR-O-COTE, DUR-O-SET	National Starch
Vinyl-acrylic polymer	SUNCRYL	Sequa
Vinyl copolymer	COLVINAL 226	Allied Colloids
Vinyl copolymer	ESTEKOLL	Stockhausen
Vinyl copolymers blend	TESCOL PD53	Allied Colloids
Vinyl polymer and modified starch	COLSIZE NM	Allied Colloids
Vinyl pyrrolidone, ethyl meth- acrylate, and methacrylic acid terpolymer	STEPANHOLD	Stepan
Wax	ALCOWAX	Allied Colloids
Wax	SILIGEN III	BASF
Wax	ARIDRY N, SOFT L	CNC
Wax	ECCO, ECCOPEL, ECCO BASE WAX	Eastern Color
Wax	SOFTEX	Hart
Wax	STANTEX	Henkel
Wax	NORANE F	Sequa
Wax	STOKOTAL	Stockhausen
Wax	JER DRI SLM	Sybron
Wax/aluminum salt complex	JER DRI WRI	Sybron
Waxes and aluminum salts	ARIDRY AA	CNC
Wax-zirconium salt	ARIDRY Z	CNC
Wax/zirconium salt complex	JER DRI WRN	Sybron
White mineral oil	ECCOLUBE	Eastern Color
White mineral oils	BRITOL	Petroleum Specialties
White oils, standard	SEMTOL	Witco-Sonneborn
Zinc chloride	CONDENSOL Z	BASF
Zinc crosslinking agent	ZINPLEX	Ultra
Zinc nitrate	CONDENSOL K	BASF
Zinc nitrate	CATALYST ZNG	CNC
Zinc nitrate	CATALYST 143	Eastern Color
Zinc nitrate	CATALYST T	Sybron
Zinc/organic acid	CATALYST SL	Eastern Color
Zinc sulfoxylate formaldehyde modified	HYDROLITE	Sandoz
Zirconium product	ARIDRY SS-80	CNC
Zirconium synthetic wax complex	IMPREGNOLE	Sequa
Zirconium/wax emulsion	ECCOPEL Z 4	Eastern Color
Zirconium/wax emulsion	TRUKON JP	Hart
Zirconium/wax emulsion	CEROL A	Sandoz

Trade Name Index

Trade Name	Supplier
ACCELERIT	Finetex
ACRILEV	Finetex
ACRYSOL	Rohm & Haas
ACTIRON	Synthron
ADHERE-TEX	Intex Chemical
ADOGEN	Sherex
AIRFLEX	Air Products
ALBON	Finetex
ALCAMINE	Allied Colloids
ALCOFIX	Allied Colloids
ALCOGUM	Alco
ALCOLUBE	Allied Colloids
ALCOPOL	Allied Colloids
ALCOPRINT	Allied Colloids
ALCOSET	Allied Colloids
ALCOSIST	Allied Colloids
ALCOSIZE	Allied Colloids
ALCOSOFT	Allied Colloids
ALCOSPERSER	Allied Colloids
ALCOSTAT	Allied Colloids
ALCOVAT	Allied Colloids
ALCOWAX	Allied Colloids
ALDOR	Vikon
ALEGPON	Sandoz
ALKYLENE	Hart Products
ALQUEST	Allied Colloids
AMGARD	Albright & Wilson
AMINOL	Finetex
ANALON	Hart Products
ANEDCO	Anedco
ANTI BLAZE	Albright & Wilson
ANTIFUME	Sybron
ANTIMUSSOL	Sandoz
ANTISPUMIN	Stockhausen
APPRETAN	Hoechst Celanese
AQUAFILM	CNC Chemical Corp.
AQUATHANE	CNC Chemical Corp.
ARIDRY	CNC Chemical Corp.
ARIFIX	CNC Chemical Corp.
ARKOLEV	Sandoz
AROSPERSER	Sherex
AROSTIT	Sandoz
ASM	Dan River
ASTON	Hi-Tek Polymers
AVASOL	Alframine
BACTOSOL	Sandoz
BARQUAT	Lonza
BELFASIN	Henkel
BENOL	Witco
BERSET	Bercen
BIOSOFT	Stepan
BIOTERGE	Stepan
BLANDOL	Witco
BLAXON	Eastern Color & Chemical
BLEACH ASSIST	Hart Products
BLUE STAR	Ampspec
BONDEX	Finetex
BRITOL	Petroleum Specialties International
BRITOL	Witco
BROWNEX	Dixo
BTC	Hi-Tek Polymers
BUBBLE BREAKER	Witco
BURCENE	Burlington
BURCO	Burlington
BURCOCRYL	Burlington
BURCODYE	Burlington
BURCOFIX	Burlington

Trade Name	Supplier
BURCOLEV	Burlington
BURCOPOWER	Burlington
BURCOSOFT	Burlington
BURCOSPERSER	Burlington
BURCOVEL	Burlington
BURCOWET	Burlington
BUXCOWITE	Burlington
BURST	Hydrolabs
CALIBAN	White Chemical
CAPITAL	Capital City Products
CARBANONES	Hart Products Corp.
CARBOPON	Hoechst Celanese
CARBOWHITE	American Hoechst, Hoechst Celanese
CAREFREE	Sybron
CARNATION	Witco
CARSOSOFT	Lonza
CASSOFIX	American Hoechst, Hoechst Celanese
CASSULFON	American Hoechst, Hoechst Celanese
CASSURIT	American Hoechst, Hoechst Celanese
CATOMER	Sybron
CELLAMINE	Eastern Color & Chemical
CERANINE	Sandoz
CEROL	Sandoz
CHEK-RUST	Flame Control Coatings
CHEMCOGEN	Hi-Tek Polymers
CHEMCOLOFT	Hi-Tek Polymers
CHLOREZ	Dover
CHLORO-FLO	Dover
CHROMASET	Henkel
CHROMASIST	Henkel
CINCLEAR	Stockhausen
CINDYE	Stockhausen
CINLEVEL	Stockhausen
CINSOFT	Stockhausen
CNC	CNC Chemical Corp.
CNCOMERSE	CNC Chemical Corp.
COBELFIX	Sandoz
COLCAR	Allied Colloids
COLLASYN	Allied Colloids
COLSIZE	Allied Colloids
COLSOL	Scher Chemicals
COLVINAL	Allied Colloids
CONDENSOL	BASF
CONDITIONAL W	CNC Chemical Corp.
CONTINENTAL	Vanderbilt
CORDEX	Finetex
CORDON	Finetex
COTTOCLARIN	Henkel
CPA-ALPHA	Dixie
CRILICON	Sybron
CRILIPRINT	Sybron
CRILITEX	Sybron
CUPROFIX	Sandoz
CURITE	National Starch and Chemical
CURSIL	National Starch and Chemical
DALON	Hi-Tek Polymers
DANCHEM	Dan River
DANCO	Dan River
DANFIRM	Dan River
DANSCOUR	Dan River
DANSET	Dan River
DANSIL	Dan River
DANSPERSE	Dan River
DESOMEEN	DeSoto
DESONIC	DeSoto
DESOPHOS	DeSoto
DESOTAN	DeSoto

Trade Name	Supplier
DETERSOL	Finetex
DIJEX	Dixo
DILASOFT	Sandoz
DILATIN	Sandoz
DISPEX	Allied Colloids
DIXOFORM	Dixo
DIXOTEX	Dixo
DORESCO	Dock Resins
DOW CORNING	Dow Corning
DRAFCOL	Allied Colloids
DRITON	Sybron
DRYOL	Synthron
DULLATONE	Hi-Tek Polymers
DUOFOL	Hart Products Corp.
DURABOND	Eastern Color & Chemical
DURACET	Finetex
DUR-O-COTE	National Starch and Chemical
DUR-O-CRYL	National Starch and Chemical
DUR-O-SET	National Starch and Chemical
DYASSIST	Sandoz
DYCAR	Hart Products Corp.
DYEASSIST	Hart Products Corp.
DYEFIX	National Starch and Chemical
DYASET	Sybron
DYEWELD	Sybron
DYFAS	Finetex
DYLEV	National Starch and Chemical
DYMEX	Sandoz
EASTMAN	Eastman Chemicals
E.B. BLOCKOUT	Eastern Color & Chemical
E.B. GOLDEN GLITTER	Eastern Color & Chemical
E.B. NEUTRAL GLITTER	Eastern Color & Chemical
ECCO	Eastern Color & Chemical
ECCOBLANC	Eastern Color & Chemical
ECCOBOND	Eastern Color & Chemical
ECCOBRITE	Eastern Color & Chemical
ECCOCLEAN	Eastern Color & Chemical
ECCO DULLER	Eastern Color & Chemical
ECCODYE	Eastern Color & Chemical
ECCO DYSIST	Eastern Color & Chemical
ECCOFIX	Eastern Color & Chemical
ECCOFUL	Eastern Color & Chemical
ECCOGARD	Eastern Color & Chemical
ECCOGEL	Eastern Color & Chemical
ECCOLUBE	Eastern Color & Chemical
ECCOPEL	Eastern Color & Chemical
ECCOPON	Eastern Color & Chemical
ECCO PRINTLUBE	Eastern Color & Chemical
ECCOPUFF	Eastern Color & Chemical
ECCO REZ	Eastern Color & Chemical
ECCORO	Eastern Color & Chemical
ECCOSCOUR	Eastern Color & Chemical
ECCOSCROOP	Eastern Color & Chemical
ECCO SELBIND	Eastern Color & Chemical
ECCOSOFT	Eastern Color & Chemical
ECCOSOL	Eastern Color & Chemical
ECCOSOLV	Eastern Color & Chemical
ECCOSPERSE	Eastern Color & Chemical
ECCOSTAT	Eastern Color & Chemical
ECCOTERGE	Eastern Color & Chemical
ECCOWAX	Eastern Color & Chemical

Trade Name	Supplier
ECCOWET	Eastern Color & Chemical
EDGE GUM	Sybron
EGANAL	American Hoechst Corp., Hoechst Celanese
EKALINE	Sandoz
ELFUGIN	Sandoz
EMCOL	Witco
EMEREST	Henkel
EMERLUBE	Henkel
EMERSTAT	Henkel
EMERY	Henkel
EMIGEN	American Hoechst Corp., Hoechst Celanese
EMPHOS	Witco
EMPICOL	Albright & Wilson
EMPILAN	Albright & Wilson
EMSORB	Henkel
ERNALTEX	Alframine
ERVOL	Witco
ESTARFIN	Stockhausen
ESTEKOLL	Stockhausen
ETHYLEX	Staley
EXTENDOLOC	Sybron
EXTENDOPEL	Sybron
E-Z-DUZ-IT	Dixco
FABSTICK	Sybron
FACEGARD	CNC Chemical Corp.
FADEX	Sandoz
FASHION STYLE	Dixco
FIBA-BOND	CNC Chemical Corp.
FIBERMATE	Sybron
FIBRAMOLL	American Hoechst Corp., Hoechst Celanese
FINAPAL	Finetex
FINDET	Finetex
FINSCROOP	Finetex
FINSIST	Finetex
FINSOFT	Finetex
FIXAMIN	Stockhausen
FIXAPRET	BASF
FLAME CONTROL	Flame Control Coatings
FLAMEGARD	Sybron
FLEX	CNC Chemical Corp.
FLEXBOND	Air Products
FLUOROEXTEND	Sybron
FLUOROTEX	CNC Chemical Corp.
FOAMASTER	Henkel
FOAMEX	Hi-Tek Polymers
FOAMGARD	Hi-Tek Polymers
FOAMSOFT	Sybron
FOAMTROL	Ultra
FOMEX	Hydrolabs
FYARESTOR	Pearsall
GEMTEX	Finetex
GERMOCID	BASF
GLORIA	Witco
GOMMEX	Synthron
HAMACO	Staley
HARTAMIDE	Hart Products Corp.
HARTENOL	Hart Products Corp.
HARTERGE	Hart Products Corp.
HARTERGE MRS	Hart Products Corp.
HARTEX	Hart Products Corp.
HARTOCONE	Hart Products Corp.
HARTOFIX	Hart Products Corp.

Trade Name	Supplier
HARTOFOLS	Hart Products Corp.
HARTOFUME	Hart Products Corp.
HARTOPEN	Hart Products Corp.
HARTOPONS	Hart Products Corp.
HARTORESIN	Hart Products Corp.
HARTOSOLVE	Hart Products Corp.
HARTOX	Hart Products Corp.
HARTUWET	Hart Products Corp.
HELIZARIN	BASF
HERCOSETT	Hercules
HERCULES	Hercules
HOECHST	American Hoechst Corp., Hoechst Celanese
HOSTALUX	American Hoechst Corp., Hoechst Celanese
HOSTAPUR	American Hoechst Corp., Hoechst Celanese
HOSTATEX	American Hoechst Corp., Hoechst Celanese
HY-AD	Sandoz
HYDRELEASE	Hydrolabs
HYDRISEL	Hydrolabs
HYDROCIDE	Hydrolabs
HYDROCLEAN	Hydrolabs
HYDRODEFOAM	Hydrolabs
HYDRODOR	Hydrolabs
HYDRODULL	Hydrolabs
HYDROFIX	Hydrolabs
HYDROGUM	Hydrolabs
HYDROL	Hydrolabs
HYDROLAST	Hydrolabs
HYDROLEV	Hydrolabs
HYDROLITE	Sandoz
HYDROLUBE	Hydrolabs
HYDROMER	Hydrolabs
HYDRON	Hydrolabs
HYDRONAP	Hydrolabs
HYDRONYL	Hydrolabs
HYDROPOL	Hydrolabs
HYDROPRUF	Sandoz
HYDROQUEST	Hydrolabs
HYDROSCOUR	Hydrolabs
HYDROSIST	Hydrolabs
HYDROSOFT	Hydrolabs
HYDROSPERSE	Hydrolabs
HYDROSTAT	Hydrolabs
HYDROSTRIP	Hydrolabs
HYDROTERGE	Hydrolabs
HYDROTEX	Hydrolabs
HYDROWET	Hydrolabs
HYLITE	National Starch and Chemical
HYMOLONS	Hart Products Corp.
HYONIC	Henkel
HYSOFT	Hi-Tek Polymers
IMACOL	Sandoz
IMEROL	Sandoz
IMPREGNOLE	Sequa Chemicals
INCROSOFT	Croda
INDOSOL	Sandoz
INTEX	Intex Chemical
INTRASOL	Stockhausen
JER DRI	Sybron
JERSEY	Sybron
JESCO	Sybron
J SLIP	Sybron
J SOFT	Sybron

Trade Name	Supplier
KALEX	Hart Products Corp.
KARA DYE	Hi-Tek Polymers
KARA FIX	Hi-Tek Polymers
KARA KLEEN	Hi-Tek Polymers
KARA LUBE	Hi-Tek Polymers
KARA MUL	Hi-Tek Polymers
KARASIST	Hi-Tek Polymers
KARA SPERSE	Hi-Tek Polymers
KARA WET	Hi-Tek Polymers
KAURIT	BASF
KAYDOL	Witco
KELATE	Dan River
KESSCO	Stepan
KLEAROL	Witco
KLEEROX	Hi-Tek Polymers
KLENZOL	Hydrolabs
LANAPRESS	BASF
LAVORAL	Stockhausen
LEOMIN	American Hoechst Corp., Hoechst Celanese
LEONIL	American Hoechst Corp.
LEUCOPNOR	Sandoz
LINT-GARD	CNC Chemical Corp.
LOMAR	Henkel
LOW CROCK	Sybron
LUBRISOL	Scher Chemicals
LURAPRET	BASF
LUROTEX A-25	BASF
LUSAN	National Starch and Chemical
LUSTERLAC	Finetex
LYOCOL	Sandoz
LYOGEN	Sandoz
MAGICOL	Hart Products Corp.
MAKON	Stepan
MASQUOL	Synthron
MEL	CNC Chemical Corp.
MERCERANT	Dan River
MERCEROL	Sandoz
MERIX	Merix
METAGLO	Eastern Color & Chemical
MIRONOL	Stockhausen
MIROX	Stockhausen
MODAREZ	Synthron
MONOPOLAVIVAGE	Stockhausen
MONOPOLBRILLANT	Stockhausen
MOUSSEX	Synthron
MYKON	Sequa Chemicals
NACCONOL	Stepan
NAPLUBE	Piedmont Chemical
NAPSCROOP	Sybron
NAPSOFT	CNC Chemical Corp.
NEODOL	Shell Chemical
NO FORM	Finetex
NOPCO	Henkel
NOPCOSPERSE	Henkel
NOPCOSTAT	Henkel
NORANE	Sequa Chemicals
NOSIL	Vikon
NYACOL	Nyacol Products
NYDEX	Hydrolabs
NYLOFIXAN	Sandoz
NYLOSET FINISH	Scher Chemicals
NYSIST	Eastern Color & Chemical

Trade Name

NYTAL
 OPTIBRITE
 OPTIWITE
 ORZOL
 PAL
 PARANOL
 PAROIL
 PAROLITE
 PEERLESS
 PELS
 PENETRON
 PENTEX
 PERAPRET
 PERINTROL
 PERMAFIN
 PERMAFRESH
 PERMA KLEER
 PERMALENE
 PERMALOFT
 PERMA SET
 PERMASIST
 PEROWHITE
 PERSISTOL
 PETRO
 PHASE II GOLDEN DETERGENT
 HONEY
 PILLMASTER
 PLEX
 PLY-O-FAB
 POLYCLEAR
 POLY-COUPLER
 POLYDYOL
 POLYQUART
 POLYQUEST
 POLYRON
 POLYSENE
 POLYSET
 POLYSOFT
 POLYSOFT
 POLYSOFT
 POLYSTABIL
 POLYSTEP
 POLYTERGE PAT
 POMOCO
 POMOCURE
 POMOFIX
 POMOLUBE
 POMOSOFT
 POWERCLEAR
 PRAEPAROL
 PRAESTABITOL
 PRINTOGEN
 PROBAN
 PROGACYL
 PROGALAN
 PROGALUBE
 PROGASOL
 PROGASTAT
 PROTAMINE
 PROTE-FIX
 PROTE-GAL

Supplier

Vanderbilt
 CNC Chemical Corp.
 CNC Chemical Corp.
 Witco
 CNC Chemical Corp.
 Finetex
 Dover
 Henkel
 Vanderbilt
 PPG Industries
 Hart Products Corp.
 American Hoechst Corp., Hoechst Celanese
 BASF
 Stockhausen
 National Starch and Chemical
 Sequa Chemicals
 Hi-Tek Polymers
 Hi-Tek Polymers
 Sequa Chemicals
 Hi-Tek Polymers
 Hi-Tek Polymers
 Hydrolabs
 BASF
 DeSoto
 Dixo
 Sybron
 Vikon
 Dixo
 Henkel
 Textile Adjuncts Corp. (CNC Chemical Corp.)
 Eastern Color & Chemical
 Henkel
 CNC Chemical Corp.
 American Hoechst Corp., Hoechst Celanese
 National Starch and Chemical
 CNC Chemical Corp.
 CNC Chemical Corp.
 Scher Chemicals
 Sybron
 Stockhausen
 Stepan
 CNC Chemical Corp.
 Piedmont Chemical
 Piedmont Chemical
 Piedmont Chemical
 Piedmont Chemical
 Piedmont Chemical
 Hydrolabs
 Stockhausen
 Stockhausen
 Sandoz
 Albright & Wilson
 Hi-Tek Polymers
 Hi-Tek Polymers
 Hi-Tek Polymers
 Hi-Tek Polymers
 Hi-Tek Polymers
 National Starch and Chemical
 Synthron
 Synthron

Trade Name	Supplier
PROTE-NYL	Synthron
PROTE-PON	Synthron
PROTE-SOIL	Synthron
PROTE-SOL	Synthron
PROTOBILD	National Starch and Chemical
PROTOCOL	National Starch and Chemical
PROTODYE	National Starch and Chemical
PROTOGARD	National Starch and Chemical
PROTOL	Witco
PROTOLUBE	National Starch and Chemical
PROTOREZ	National Starch and Chemical
PROTOSIL	National Starch and Chemical
PROTOSORB	National Starch and Chemical
PROTOWATE	National Starch and Chemical
PROTOWET	National Starch and Chemical
PROVENTIN	Henkel
PROX	Synthron
PROX-AMINE	Synthron
PRYM	Sequa Chemicals
PYRAX	Vanderbilt
PYROBAN	CNC Chemical Corp.
QUIKSET	CNC Chemical Corp.
QUIKWET	Hydrolabs
RAMASIT	BASF
RANEOFF	Eastern Color & Chemical
RAPIDASE	Gist-Brocades
RAYONOL	Hart Products Corp.
REGINOL	Hart Products Corp.
REMOL	American Hoechst Corp., Hoechst Celanese
REPELEX	Dixo
REPELLAN	Henkel
REPEL-O-TEX	Hi-Tek Polymers
RETARDINE	Henkel
RETARDIT	Eastern Color & Chemical
RETARDOL	Albright & Wilson
REVATOL	Sandoz
REZ	CNC Chemical Corp.
REZCAT	CNC Chemical Corp.
REZ-O-SPERSE	Dover
REZ-SET	CNC Chemical Corp.
REZTHANE	CNC Chemical Corp.
RHOPLEX	Rohm and Haas
RUDOL	Witco
RUETERG	Finetex
SANDACID	Sandoz
SANDOCLEAN	Sandoz
SANDOCORIN	Sandoz
SANDOFIX	Sandoz
SANDOGEN	Sandoz
SANDOLITE	Sandoz
SANDOLUBE	Sandoz
SANDOPAN	Sandoz
SANDOPERM	Sandoz
SANDOPURE	Sandoz
SANDOSPACE	Sandoz
SANDOTEX	Sandoz
SANDOTHERM	Sandoz
SANDOXYLATE	Sandoz
SANDOZ	Sandoz
SANDOZIN	Sandoz
SANDUVOR	Sandoz

Trade Name	Supplier
SANITIZED	Sandoz
SANPEROX	Sandoz
SAPOLIB	Allied Colloids
SARPIFAN	Stockhausen
SCHERCASSIST	Scher Chemicals
SCHERCO	Scher Chemicals
SCHERCO FINISH	Scher Chemicals
SCHERCOLENE	Scher Chemicals
SCHERCOLUBE	Scher Chemicals
SCHERCOMID	Scher Chemicals
SCHERCOTARDER	Scher Chemicals
SCHERCOTERGE	Scher Chemicals
SCHERCOWET	Scher Chemicals
SCHERPOL	Scher Chemicals
SCHERSOFTOIL	Scher Chemicals
SCROOP	CNC Chemical Corp.
SEBOSAN	Stockhausen
SECURON	Henkel
SELBANA	Henkel
SEMTOL	Witco
SEQ	Vikon
SEQUAFOAM	Sequa Chemicals
SEQUAPEL	Sequa Chemicals
SEQUAWET	Sequa Chemicals
SI-FINISH	Wacker Silicones
SILIGEN	BASF
SILKAND	Hi-Tek Polymers
SILKSOFT	Sybron
SILSMOOTH	Sandoz
SIRRIX	Sandoz
SOBALG	Grindsted
SODYECO	Sandoz
SODYEFAC	Sandoz
SODYEFIDE	Sandoz
SODYEFRESH	Sandoz
SODYELUBE	Sandoz
SOFANOL	National Starch and Chemical
SOFT	CNC Chemical Corp.
SOFTEX	Hart Products
SOFTOLENE	Hart Products
SOFTYNE	Hart Products
SOILAC	Sybron
SOIL SOFT	Sybron
SOL	CNC Chemical Corp.
SOLEAL	American Hoechst, Hoechst Celanese
SOLEM	Solem
SOLIDOKOLL	American Hoechst, Hoechst Celanese
SOLOH	Eastern Color & Chemical
SOLOPOL	Stockhausen
SOLVOLENE	Hart Products
SONNEBORN	Witco
SPANSCOUR	CNC Chemical Corp.
SPARTAN	Spartan Flame Retardants
SPINZIT	National Starch and Chemical
SPOTTER	Dixo
STABICOL	Allied Colloids
STACLIPSE	Staley
STADEX	Staley
STALEY	Staley
STANCARD	Henkel
STANDAFIN	Henkel

Trade Name	Supplier
STANDAPOL	Henkel
STANDAPON	Henkel
STANLEV	Henkel
STANSOFT	Henkel
STANSPERSE	Henkel
STANTEX	Henkel
STARAMIC	Staley
STEPANHOLD	Stepan
STEPANOL	Stepan
STEROX	Monsanto
STIK-GUM	CNC Chemical Corp.
STOKAL	Stockhausen
STOKDRON	Stockhausen
STOKOTAL	Stockhausen
STYMER	Monsanto
SULFANOLE	Sequa Chemicals
SULFOX	Dan River
SULTAFON	Stockhausen
SUNCRYL	Sequa Chemicals
SUNPAR	Sun Refining
SUNSIZE	Sequa Chemicals
SUNTHENE	Sun Refining
SUPERCLEAR	Henkel
SUPERKLEEN	CNC Chemical Corp.
SUPERKLEEN EXTENDER	CNC Chemical Corp.
SUPERKLEEN PLUS	CNC Chemical Corp.
SUPERSOFT	CNC Chemical Corp.
SUPERWET	Intex Chemical
SURE SIZE	Hydrolabs
SYLWAX	National Starch and Chemical
SYNCOL	Allied Colloids
SYNTERGENT	Henkel
SYNTHASIL	Piedmont Chemical
SYNTHRO	Hart Products Corp.
SYNTHROPEL	Synthron
TALLOFIN	Stockhausen
TALLOPOL	Stockhausen
TAMOL	Rohm and Haas
TANABOND	Sybron
TANAFRESH	Sybron
TANAPEL	Sybron
TANAPRINT	Sybron
TANASOFT	Sybron
TANAWET	Sybron
TAURANOL	Finetex
TELURA	Exxon
TERGENOL	Hart Products Corp.
TERGITEX	Scher Chemicals
TESCOL	Allied Colloids
TETRALIX	Stockhausen
TETRALON	Allied Colloids
TEXAPRET	BASF
TEXI	CNC Chemical Corp.
TEX-SOFT	Intex Chemical
TEXTILE WAX	BASF
TEX-WET	Intex Chemical
THERMACOL	Allied Colloids
THFA	QO Chemicals
THIOTAN	Sandoz
THIOX	Hydrolabs
TINTZOL	National Starch and Chemical

Other Noyes Publications

INDUSTRIAL HYGIENE ENGINEERING

Recognition, Measurement, Evaluation and Control

Second Edition

Edited by

John T. Talty

National Institute for Occupational Safety and Health

This book provides an advanced level of study of industrial hygiene engineering situations with emphasis on the control of exposure to occupational health hazards. Primary attention is given to industrial ventilation, noise and vibration control, heat stress, and industrial illumination. Other topics covered include industrial water quality, solid waste control, handling and storage of hazardous materials, personal protective equipment, and costs of industrial hygiene control.

The book will serve as a single reference source on the fundamentals of industrial hygiene engineering as related to the design of controls for exposure to health hazards in the workplace. The control of occupational health hazard exposures requires a broad knowledge of a number of subject areas. To provide a text that includes the necessary theoretical foundation as well as the practical application of the theory is a significant undertaking. This text will be a valuable and needed addition to the literature of industrial hygiene, providing the reader with a systematic approach to problem solving in the field of industrial hygiene.

The eight sections of the book are self-contained. Each covers a particular subject area, thus allowing for reference to a single topic area without the need to consult other sections of the book.

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