

Short Course To Encompass New Trends In Soap and Detergent Chemistry

Substantial progress is reported by Eric Jungermann, 1963 AOCS Short Course Chairman, as he prepares a program emphasizing up-to-date trends in surfactant chemistry. Plans are underway for a panel discussion on all aspects of biodegradability under the Chairmanship of E. S. Pattison, of the Soap and Detergent Association.

One technical session, covering new raw materials, will include a presentation by Robert Cooper, Stauffer Chemical Co., reviewing the chemistry and uses of organophosphorus surfactants. Other topics in this session will deal with *alpha*-olefins, alcohols, and amine oxides.

In addition, a session on physico-chemical properties and new analytical methods will be offered. A discussion of recent developments in physical evaluation techniques will be presented by M. E. Ginn, Armour & Co. M. A. Mankowich's talk will deal with correlation of physico-chemical factors with detergency, emphasizing recent advances in the field. L. E. Netherton, Victor Chemical Co., will present a lecture on inorganic phosphate builders for detergents with particular attention to the application in detergent tablets.

Plans are continuing to secure additional outstanding speakers. Topics will include tableting of detergents, recent advances in product development utilizing new raw materials, new analytical techniques, optical brighteners, etc.

Further information may be obtained from the American Oil Chemists' Society, 35 E. Wacker Drive, Chicago 1, Ill.

Membership in the American Oil Chemists' Society is not a requirement for attendance.

• Local Section News

Bailey Award

(Continued from page 14)

In addition to his other contributions, Dr. Baldwin has been a member of the Journal Committee since 1946, Chairman and Editor of the Journal since 1949. He was a member of the Governing Board of the Society in 1951, 1952, and from 1955 to date. He has served on the Membership, Fat Analysis, Nominating and Election, Finance, Fatty Acid, Award, and Education Committees. In 1952-53, he prepared the Cumulative 35-year Index of the Journal.

Southwest Section

The Southwest Section will hold a regular meeting on March 14th at the Rodger Young Auditorium at 6:30 PM. The speaker will be Wesley Mossberg, Head Deputy Sealer, Investigation Division, Department of Weights and Measures. Mr. Mossberg will discuss the Weights and Measures Regulations and how they apply to the packaging of products in the industries represented by AOCS.

Reservations may be made by calling F. C. Woekel, Angelus 9-7421.

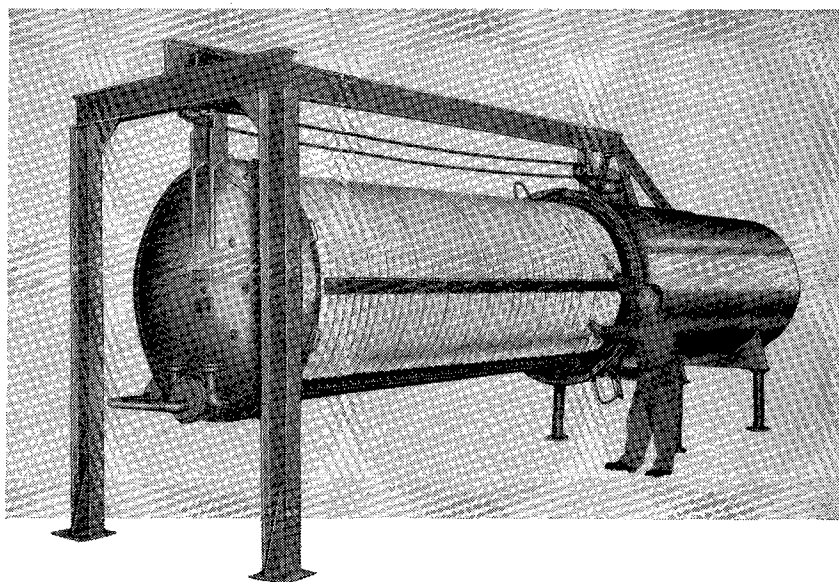
DuPont Receives Industrial Science Achievement Award

The AAAS Industrial Achievement Award was recently given to The DuPont Co. for their discovery of fluorocarbon polymers. The use of the fluorocarbon compounds range from artificial arteries to a film used to replace paint, including bakeries, cookware, and pipelines carrying nitric acid.

Accepting the Award for the Du Pont Co. at the recent meeting of the American Association for Advancement of Science, was Samuel Lenher, Vice President of the Wilmington-based concern.

For processing
winterized oils

NIAGARA[®] FILTERS OFFER 3-WAY ECONOMY



SAVE ON INSTALLATION COSTS: The fully jacketed design of NIAGARA filters eliminates the need for refrigerated rooms. **SAVE LABOR COSTS:** Design utilizes a simple system of push buttons and valves that enable one man to operate an entire bank of NIAGARA filters. **SAVE FILTER MEDIA:** Leaf design permits easy cake removal with no scraping. This lengthens cloth life.

NIAGARA filters are available in 3 basic types . . . vertical pressure leaf, horizontal pressure leaf and hor-

izontal plate filter. Investigate NIAGARA filters for all your filtration problems. See the advantages of greater flow; lower maintenance and operating costs; positive solids removal and totally enclosed construction. For full details on custom-built, cost-saving NIAGARA filters, write today. Address Dept. JO-263.



AMETEK

NIAGARA FILTERS

A DIVISION OF AMETEK, INC. • EAST MOLINE, ILLINOIS

(Niagara Filters Europe: Kwakelpad 28, Alkmaar, Holland)

ACTIVATED CLAYS AND BLEACHING EARTHS of quality



Throughout the world...

... more and more oil refiners use our products

PEMBINA MOUNTAIN CLAYS LTD

945 Logan Avenue, Winnipeg 3, Manitoba, Canada

Telephone: SPRUCE 4-5551

Telegrams: "PEMCLAYS, WINNIPEG, CANADA"

Prompt deliveries of Natural and Activated
Clays to destinations in the U.S.A. and Canada.

THE FULLERS' EARTH UNION LTD

Patteson Court, Redhill, Surrey, England

Telephone: REDHILL 3521

Telegrams: "FULLION, REDHILL"

"FULMONT" Activated Bleaching Earths—
prompt shipments all over the world.

Members of the Laporte Group



CM69

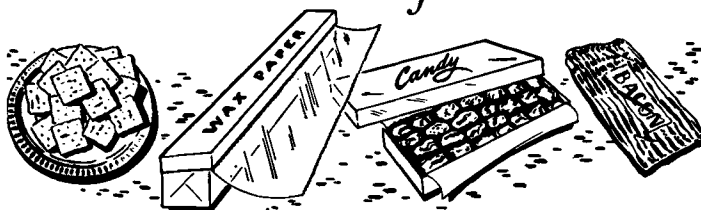
prevent rancidity in fat-containing foods

with the **Sústane**[®]
formulation
best suited to your needs

Cooking, baking, deep frying . . . no matter what your processing method, Sústane is your assurance of product freshness. Sústane BHA is used effectively alone or in combination with other antioxidants to provide a carry-through protection that keeps food fresh far longer.

Sústane antioxidants are available in several convenient, economical forms for maximum time, labor and money savings. We will be happy to recommend the Sústane formula best suited to your product.

available in 6 formulations



ANTIOXIDANT	FORM	PRODUCTS PROTECTED
Sústane BHA	Tablet	Lard Shortening Edible Tallow Oleo Oil Rendered Beef Fat Frying Oils Inedible Tallow Inedible Grease Paraffin Waxes Citrus Oils Essential Oils Baked Goods Cake Mixes Prepared Foods Fish Products Confections Potato Chips Shelled Nuts
Sústane 1-F	Flake	
Sústane 3-F	Flake	
Sústane 3	Liquid	
Sústane 6	Liquid	
Sústane BHT	Crystalline	

Technical assistance in selecting the most effective Sústane antioxidant for your specific needs is available on request. For detailed information write to UOP Products Department or our Sales Representative:

WILLIAM E. PHILLIPS, INCORPORATED
435 North Michigan Avenue, Chicago 11, Illinois

Sústane[®]
UOP **UNIVERSAL OIL PRODUCTS COMPANY**
® 30 Algonquin Road, Des Plaines, Illinois

Willis Avenue, Albertson, N.Y. and Hellige Inc., 877 Stewart Avenue, Garden City, N.Y. These companies have, also, developed instruments which carry the approved light source, together with glass standards for convenient color readings.

Epoxidized Oils Subcommittee

The Subcommittee on Epoxidized Oils was reactivated at the Toronto Convention to consider modifications that have been proposed in AOCS Control Method Cd-9-57, Oxirane Oxygen. These proposed modifications appear to give slightly higher oxirane values than the official method and a collaborative program has been set up to study the modifications. Consideration will, also, be given to adapting other standard methods to epoxidized oils.

Fatty Acids Subcommittee

The Fatty Acids Subcommittee is working in liaison with the ASTM Fatty Acids Liaison Committee. All methods developed are published in both the ASTM and AOCS official methods book. The Subcommittee is presently studying the Saponification Value and Unsaponifiable Matter Methods to determine the feasibility of substituting methyl or isopropyl alcohol for ethyl alcohol in these determinations. The use of alcoholic KOH instead of aqueous KOH for running acid values on fatty acid is, also, being studied.

KENNETH E. HOLT, Chairman.

• Names in the News

R. L. Bovit (1962) will assume the duties of Marketing Manager, Fine Chemicals Division, Hoffmann-La Roche Inc. Mr. Bovit has served as Manager of Chemical Marketing Research at Roche for the past nine months. He was previously employed as Sales Manager for the Food Division of Nopec Chemical Co.

V. K. Babayan (1948) has been elected Vice President and Director of Laboratories of Drew Chemical Corp. Besides directing the Research and Development progress of the firm, Mr. Babayan will also assume the responsibility of the Technical Service and Quality Control laboratories.

John Peterson was recently elected Vice President and General Manager of the Blanton Co. Mr. Peterson was previously Director of Sales, Industrial Division of Drew Chemical Corp.



R. L. Bovit



John Peterson



V. K. Babayan

Nat Kessler (1951) was recently named General Superintendent of the A. E. Staley Manufacturing Co.'s Decatur plant, Decatur, Ill. Mr. Kessler has been Plant Superintendent of the Decatur plant since 1961.

Industrial Oils and Derivatives Committee Report

The Industrial Oils and Derivatives Committee is currently composed of five working Subcommittees. The following report is published to keep the members of the Society informed regarding the activities of these Subcommittees and to enlist the aid of other members having an interest in the products and methods covered by these Subcommittees.

Additional Subcommittees will be established as the need and interest arises. Inquiries have been received regarding the establishment of Subcommittees on Saturated Fatty Acids and Fatty Alcohols. Any of the Society members having an interest in the methodology of these products or other oil derivatives are requested to contact the Chairman of the Industrial Oils and Derivatives Committee.

Fatty Nitrogen Subcommittee

The Fatty Nitrogen Subcommittee has a liaison arrangement with ASTM Committee D-1, Sub XX, Group 1 on Fatty Nitrogen Products. All methods that are developed will be published in both the ASTM and the AOCS method books. To date fifteen methods covering Fatty Amines and Fatty Quaternary Ammonium Chlorides have been adopted by the Society and are published in the official methods book under Section N. Because of the many types of fatty nitrogen derivatives and large variety of methods needed to evaluate these products, the Fatty Nitrogen Subcommittee has been divided into a number of task groups. The assignment of the task groups are as follows: Task Group 1A, Fatty Amidoamines and Imidazolines—Task Group 1B, Dimer Amidoamines and Imidazolines—Task Group 2, Dimethyl Fatty Amines—Task Group 3, Fatty Diamines—Task Group 4, Fatty Amines. All of these task groups are conducting collaborative studies, the results to be reported at the AOCS meetings in Atlanta in April.

Polymerized Fatty Acid Subcommittee

The Polymerized Fatty Acid Subcommittee held their organizational meeting in Toronto last October 1. Six men were present and they will form the nucleus of this Subcommittee. Additional members, particularly from consumer industries, are invited to join the Subcommittee and participate in its work.

Initial samples of dimer and trimer acids are being submitted to the Subcommittee members for collaborative studies on percent water by Karl Fischer, acid value, unsaponifiable matter, saponification value and color. Preliminary studies are also being made on a gas chromatographic method.

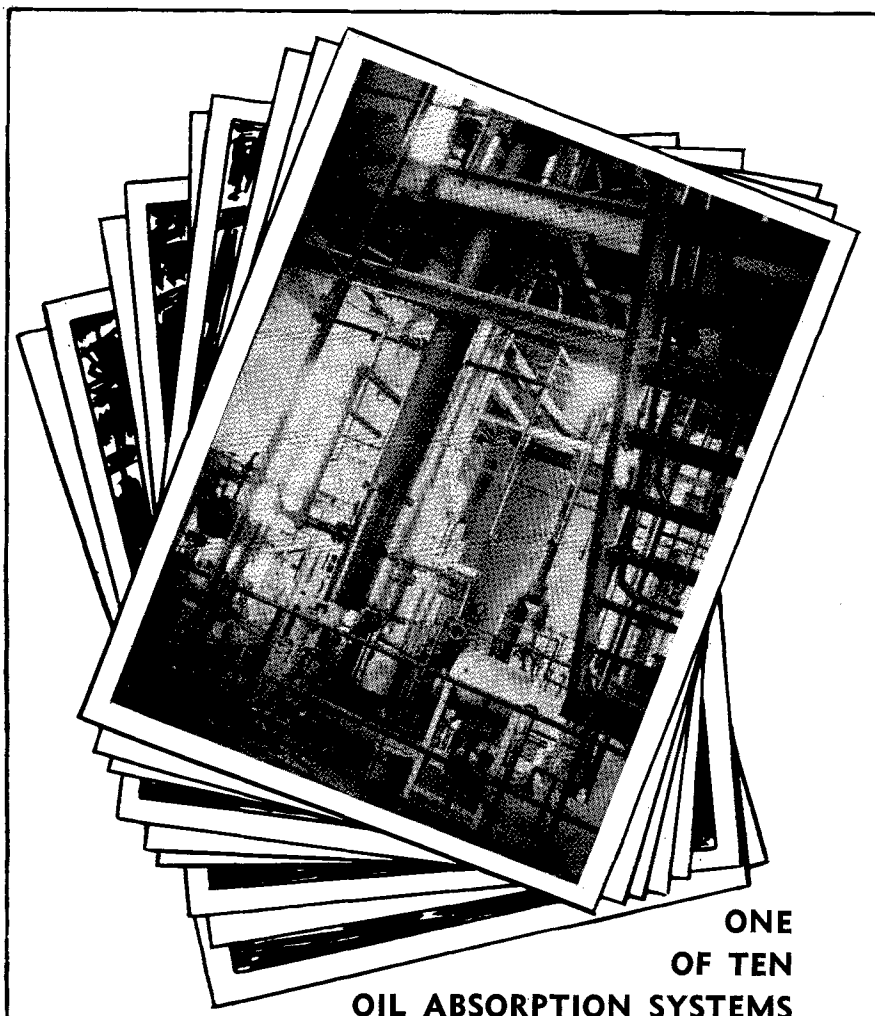
Drying Oils Subcommittee

The Drying Oils Subcommittee is one of long standing in the Society, having jurisdiction over the methods published in Section K. The methods of Viscosity and Color have been subjected to extensive study to improve their accuracy and precision. The collaborative work on modification of these methods has been completed and revised methods are being issued.

Method Ka-6-59, Viscosity of Transparent Liquids by Bubble Time Method. The method is being revised to make comparator tubes calibrated in stokes and centistokes the primary

standards replacing the Gardner-Holdt letter designations. These comparator tubes, calibrated and marked in centistokes and stokes, will be available from Gardner Laboratory Inc., P. O. Box 5728, Bethesda 14, Md.

Method Ka-3-58, Color, Gardner Standards. The potassium chloroplatinate, cobalt chloride and ferric chloride used in the Gardner liquid standards are not stable and the Drying Oils Subcommittee has approved a series of 18 colored glass discs to replace the liquids as primary standards. Glass standards that have been approved by the Subcommittee are available from Hayes Shimp Inc., 866



**ONE
OF TEN
OIL ABSORPTION SYSTEMS**

**Designed and Furnished by EMI
for SOLVENT RECOVERY**

These systems, furnished by EMI, are giving solvent recovery resulting in solvent loss reduction to as low as $\frac{1}{4}$ to $\frac{1}{2}$ Gallon per Ton, or 0.07% to 0.14% of the material processed.

For similar improvement in
YOUR plant, write or phone

EMI ENGINEERING
MANAGEMENT
INCORPORATED
PARK RIDGE, ILLINOIS

Progress with

FATTY ACIDS

THE PLASTICS BOOM AND OLEIC ACID



Oleic Acid has played an important role in the tremendous increase in sales of plastic products. Butyl oleate, a derivative, is a widely used plasticizer.

FATTY ACIDS SCORE IN SUDS CONTROL



Oversudsing of alkyl benzene sulfonate detergents now can be reduced without lowering cleaning power. Anti-foam additive, as described in a German patent assigned to a California company, consists of a mixture of saturated fatty acids and fatty acid esters of polyethylene glycol (such as polyethylene glycol stearate).

Below are facts you should know about two Fatty Acids produced by A. Gross.

Specification	DISTILLED RED OIL GROCO 4	HYDROGENATED TALLOW F.A. GROCO 58
Titre	4°-6°C	58°-60°C
Titre	39.2°-42.8°F	136.5°-140.0°F
Color 1" Lovibond Red*	0.8 max.	1.0 max.
Color 1" Lovibond Yellow*	8 max.	5 max.
Unsaponifiable	1.5% max.	0.5% max.
Saponification Value	198-203	204-207
Acid Value	197-202	203-206
% F.F.A. as Oleic Acid	99 min.	—
Iodine Value (WIJS)	94 max.	1.5 max.
Refractive Index 50°C. (Av.)	1.4500	—

*5/4" cell for GROCO 58



295 MADISON AVENUE • NEW YORK 17, N. Y.
Factory: Newark, New Jersey
Manufacturers Since 1837

• New Products

E. H. SARGENT & Co., Chicago, Ill., now offers the SRL Recorder, enabling a direct or logarithmic response for continuous, precise recording of an electrical variable or its logarithm with respect to time. This recorder can be used with spectrophotometers, photometers, densitometers, and similar instruments to record either transmittance or absorbance, and for all other laboratory recording operations.

BENNETT INDUSTRIES, INC., Peotone, Ill., recently announced their new 5-gallon POLY SHUR PAK steel pail with polyethylene liner tailored to fit products that are impossible or hard to hold satisfactorily in standard lined pails. The new pail is now being produced at the Peotone Plant as a part of its program in polyethylene lined steel pails, drums, and fiber drums.

LAB FABRICATORS Co., Cleveland, Ohio, are now manufacturing a pressurized, air conditioned fume hood for industrial research, hospital and school laboratories. The intake air-flow of the hood is so directed that all the toxic fumes are purged without causing any undesirable air turbulence, allowing no toxic fumes to escape into the room.

LAPINE SCIENTIFIC Co., Chicago, Ill., announce the availability of a new line of high vacuum, rotary vane, gas ballast pumps manufactured by E. Leybold's Nachfolger of West Germany. These pumps combine the advantages of ordinary oil-sealed rotary vane pumps with the ability to remove vapors and gases mixed with vapors.

INTEGRAL MOTOR PUMP CORP., Penndel, Pa., has introduced a new canned pump with design features which provide for the effective handling of fluids and slurries at very high temperatures. Areas previously considered impossible to handle by canned pumps can now be accommodated by the new unit.

APPLIED SCIENCE LABORATORIES, INC., State College, Pa., are now offering a new series of silica gel powders for Thin-Layer Chromatography. These powders are processed to remove organic impurities which cause the developed plates to appear spotty. Also offered is a plastic applicator useful for preparation of silica gel-silver nitrate plates.

A. E. "Doc" MacGee Honored by IOMSA

The *Oil Mill Gazetteer* reported on the American Oil Chemists' Society's 36th Fall Meeting, held in Toronto, Ont., Canada last October, in their January issue. The article covered some of the highlights of the meeting, but most important, honored AOCs President A. E. MacGee, reviewing his contribution in the field.

The Editor of the *Gazetteer* staff had this note to add to the article: "Officers and members of International Oil Mill Superintendents Association join with his many other friends in pride at the honors A. E. MacGee received as President at the American Oil Chemists Society's Fall Meeting in Toronto, Canada. 'Doc' MacGee has been a member of our organization for many years and has been an active participant in activities of our conventions. He is one of our best known and most popular members. He is a representative of Skelly Oil Co., in the Solvent Division."

• Obituary

E. M. Naberschnig, Jr. (1949), died recently at his home in Westwego, La. Mr. Naberschnig was a noted chemical engineer who, aside from many other contributions, designed cotton gins in Louisiana and perfected certain types of machinery.



L. A. Schnurr
Entertainment



R. L. Moore, Jr.
Registration

Afternoon—
Technical Sessions
Committee Meetings
Evening—
Annual Dinner Dance
WEDNESDAY, APRIL 24
Morning—
Committee Meetings
Technical Sessions
Noon—
Award Luncheon
Afternoon—
Board of Governors
Meeting

It is to be noted that the ladies program will include sightseeing tours, group breakfast, and ample time for shopping and relaxation.

The March issue will carry a complete outline of the technical program, and additional details on the Atlanta Spring Meeting. Complete information on pre-registration will soon be released. Early plans for attendance will insure a most enjoyable as well as educational experience in Atlanta.



Joseph Eichberg
Printing

Crude Glycerine Production Continues Upward Trend

According to the U.S. Department of Commerce, production of crude glycerine (including synthetic) for the month of November 1962 was 23.4 million lb, up 1.0 million lb from October, but down 0.3 million lb from crude production reported for November 1961.

At the end of October, crude and refined glycerine stocks in the hands of producers totalled 59.5 million lb, up 5.0 million lb from October, but down 6.4 million lb from November last year.

NOVEMBER (Million Pounds)				
Preliminary				
Glycerine 100% Basis	Factory Production		Factory and Ware- house Stocks (Producers')	
	Nov. 1962	% Change from Sept. 1962	End of Nov. 1962	% Change from Sept. 1962
Crude.....	23.4*	+ 4.5	29.0	+ 1.0
Refined, all grades.....	23.0	+15.6	30.5	+18.2
			59.5	+19.2

* Includes synthetic glycerine.

Maximum Oxidative Stability



Griffith's G-50 OIL SOLUBLE ANTIOXIDANT

Highly effective in retarding oxidation for long period in low concentration.

Excellent "carry-through" stability after exposure to high (baking) temperatures

Non-toxic

Imparts no flavor, odor, or color

Develops no flavor, odor, or color during its stabilizing life

Doesn't cause metal-reactive discoloration of product

100% Oil-soluble

Reasonable in cost

Packed in convenient non-returnable drums

YES—Contains Propyl Gallate

YES—Contains BHT and BHA

YES

YES

YES

YES—Contains Monoglyceride-Citrate

YES

YES

YES

Write for descriptive folder.

Griffith

THE GRIFFITH LABORATORIES, INC.

1415 West 37th St., Chicago 9, Ill.
855 Rahway Avenue, Union, New Jersey
4900 Gifford Avenue, Los Angeles 38, Calif.

Our Buffalo, N. Y. Refinery

FREE WITH EVERY GALLON — 45 YEARS OF EXPERIENCE

Maybe you don't know you have a solvent problem; maybe you're perfectly satisfied with the solvent you're using now. BUT . . . isn't it perfectly logical that you could possibly improve your product with a better solvent? Or make a better one to sell at the same price? Or reduce your cost?

If you're not absolutely sure that your product quality is the best, or that you're producing at the lowest cost, or with the least trouble, you DO have a problem.

These are the kinds of problems Bronoco can help solve. Two generations of know-how, complete laboratories and experienced technical counsel are yours for the asking. Simply discuss the matter with your Bronoco representative.



BRONOCO

EXTRACTION SOLVENTS

THE R. J. BROWN CO. • 1430 SOUTH VANDEVENTER AVE. • ST. LOUIS 10, MISSOURI
For Service call your local Bronoco Distributor. PLANTS: Akron, Bellaire, O.; Buffalo, Chicago, Cincinnati, Cleveland, Columbus, O.; Dayton, Decatur, Ill.; Detroit, Indianapolis, Irving, Tex.; Lansing, Louisville, Memphis, St. Louis. Canada: 150 Bronoco Ave., Toronto 10.

hydrogenated fat (hydrogenated animal fats having a titer in excess of 55C or mixtures consisting of not less than 6 parts of hydrogenated animal fat and not more than 4 parts of hydrogenated vegetable fats having a titer of at least 60C) in combination with from 2 to 5 parts by weight of a neutralized, partially saponified, acid fat selected from the group consisting of animal, vegetable, and marine animal fats and oils having a titer in excess of 30C. This last material is a heat reaction product of from 2 to 5 parts by weight of the acid fat and from 0.5 to 1.5 parts of an alkali saponifying agent.

AIR-DRY SURFACE COATING RESIN. R. L. Broadhead (Standard Oil Co.). *U. S. 3,066,108*. A resin having air-dry properties consists of the polycondensation reaction product of (A) (I) a tricarboxylic acid (trimellitic acid or anhydride, or hemimellitic acid or anhydride), (II) a polyalkylene glycol monoalkyl ether containing from 2 to 8 ether groups, each alkylene unit containing 2 to 3 carbon atoms, and (III) a polyethenoid fatty alcohol containing at least 6 carbon atoms, with (B) (I) a material containing on the average 2 hydroxyl groups per molecule selected from the group consisting of (a) the hydroxyl group containing ester of a polyethenoid fatty acid containing at least 10 carbon atoms and a polyhydric paraffinic alcohol containing 3-4 hydroxyl groups, (b) the alcoholysis product of a drying fatty oil and polyhydric paraffinic alcohol containing 3-4 hydroxyl groups and (c) mixtures thereof, and (II) phthalic acid or anhydride. The resin is characterized by an acid number of about 15-60.

LOW VISCOSITY POLYMERIZED FATTY ACIDS POLYESTER RESINS AND METHOD OF MAKING SAME. L. R. Le Bras and R. E. Park (Pittsburgh Plate Glass Co.). *U. S. 3,068,254*. The described material consists of (A) triethylene glycol, 20-30 parts by weight; (B) a trihydric alcohol such as trimethylolpropane or trimethylolpropane, 1-6 parts; and (C) a mixture of dimer acid and trimer acid containing, respectively, 36 and 54 carbon atoms (5-35% trimer acid, the balance dimer acid), 70-75 parts. The finished polyester has a hydroxyl number in the range of 40 to 75 and a viscosity of 18,000 to 27,000 cps at 77F.

• Detergents

QUANTITATIVE SPECTROPHOTOMETRIC DETERMINATION OF SODIUM ALKYL ARYL SULFONATES BY ULTRAVIOLET ABSORPTION. A. Arpino and V. DeRosa (Exp. Station for Oils and Fats, Milan, Italy). *Riv. Ital. Sostanze Grasse* 8, 386-93 (1962). Ultraviolet absorption curves obtained on four commercial samples of dodecyl benzene sulfonates showed absorption maxima at 224 m μ and 260 m μ . Absorption maxima for the unsulfonated portion were found to exist at 246, 251, and 257 m μ . Ultraviolet absorption of inorganic salts (phosphates, sulfates, silicates, carbonates, and chlorides) and of organic additives (alkylolamides, carboxymethylcellulose) commonly present in commercial detergent formulations, was also investigated. No absorption peaks were encountered in the 220-270 m μ range and the optical extinction values of all compounds examined (with the exception of sodium carbonate) were negligible compared to those of the dodecyl benzene sulfonate.

STUDY OF ANTIOXIDANTS IN TALLOW SUITABLE FOR USE IN SOAP-MAKING. F. Houdouin and M. Loury (Lab. Jean Ripert, Inst. for Fats and Oils). *Rev. Franc. Corps Gras* 10, 552-556 (1962). It has been established by previous studies that color change during saponification is due to oxidation of the fatty material used. The authors added a series of antioxidants to tallow and followed peroxide formation and color change at 60C. Antioxidants used were N.D.G.A., hydroquinone, pyrogallol, and B.H.A. All gave acceptable results at the 0.01% level.

HIGH CLOUD-POINT NONIONICS. J. V. Karabinos and R. B. Colaric (Olin Mathieson Chemical Corp.). *Soap Chem. Specialties* 38 (11), 50-51, 105 (1962). The cloud-point of a nonionic detergent may be significantly increased by incorporation of relatively small amounts of nonionic ester sulfate, either by condensation with sulfamic acid or by addition of preformed ammonium ester sulfate to the nonionic. Nonionic detergents with cloud-points in the 60-65C range require condensation with only about 0.02-0.03 mole of sulfamic acid per mole of nonionic in order to attain cloud-points about 100C. More hydrophobic nonionics with shorter ethylene oxide chains require about 0.25 mole of sulfamic acid. At the lower levels of ester sulfate content, the foam characteristics are not materially different from those of the starting nonionic. Other anionic detergents such as sodium dodecylbenzene sulfonate will also

raise the cloud-point, but with larger quantities (0.25 mole) the foam values are raised correspondingly.

FLOATING TOILET SOAP BAR PRODUCTION. M. Fock. *Soap Chem. Specialties* 38 (11), 135, 137-8 (1962). Floating toilet bars, soap or synthetic, having a wide range of fatty acids content (70-80%) may be made by a process which introduces gas into the plasticized mass at low temperature.

DEODORIZED CHLORINATED CLEANERS. J. V. Karabinos and A. T. Ballun (Olin Mathieson Chemical Corp.). *Soap Chem. Specialties* 38 (12), 63-4, 79 (1962). The odor of chlorinated trisodium phosphate may be masked by the addition of 0.25-0.50% of polyethenoxy nonionic detergents. After 7 weeks' storage, the samples retain about 85% of the available chlorine of an untreated sample. Other advantages such as dedusting as well as enhanced detergency and wetting properties accrue to such a formulation; thus the loss of available chlorine may not be the only consideration. The hydrophilic polyglycol portion of the molecule appears to be the chlorine masking agent.

PREPARATION OF SUSPENSION OF WATER-SOLUBLE SOLIDS IN OLEAGINOUS MEDIA. E. J. Blake and W. Morrison (British Petroleum Co. Ltd.). *U. S. 3,065,173*. A method of preparing a suspension of particles of a water-soluble solid in an oleaginous medium comprises emulsifying an aqueous solution of the solid with an oleaginous liquid to form a water-in-oil emulsion using montan as the emulsifying agent. The emulsion is then dehydrated. In *U. S. 3,065,174* an aqueous solution of the solid is emulsified with a lubricating oil and beeswax. The emulsion is dehydrated and mixed with a grease. In *U. S. 3,065,175* an aqueous solution of the solid is emulsified with an oleaginous liquid and a vegetable wax and the resulting emulsion then dehydrated. In *U. S. 3,065,176* an aqueous solution of the solid is emulsified with an oleaginous liquid and an autocondensation product of 12-hydroxystearic acid and the resulting emulsion dehydrated.

HEAVY DUTY LIQUID SYNTHETIC DETERGENT COMPOSITION. L. Dasch and P. R. Cutter (Diamond Alkali Co.). *U. S. 3,066,104*. A stable heavy-duty liquid synthetic detergent composition comprises 11-20% of a synthetic detergent at least 11% of which is an amine alkyl aryl sulfonate having the general formula: $R_2R'SO_3HN(R'')_x$ in which x is a number from 1 to 5, R is an alkyl group having from 1 to 18 carbon atoms, R' is benzene, and R'' is selected from the group consisting of hydrogen, alkyl groups, and alkanol groups, the alkyl and alkanol groups containing from 1 to 8 carbon atoms; up to 5% of which is an alkali metal salt of a sulfuric acid ester of a higher alcohol; 15-20% of sodium tripolyphosphate as the alkaline builder; 1-2% of SiO₂ as an alkali metal silicate as the corrosion inhibitor; 4-6% of an alkali metal aryl sulfonate, the aryl group of which is xylene or toluene, as the solubilizing agent; 0.25-0.5% lithium as lithium hydroxide; up to 1% of potassium carboxy methyl cellulose as the soil suspending agent; and water.

COMPOSITION AND METHOD FOR WASHING TEXTILES. W. E. Walles, W. F. Tousignant, and L. C. Cloninger (Dow Chemical Co.). *U. S. 3,067,143*. A detergent composition consists essentially of (1) a textile cleansing detergent material for laundry use selected from the group consisting of fatty acid soap and synthetic organic non-soap detergents that are adapted for laundry use and (2) between 15 and 0.1 weight %, based on the weight of detergent, of a water-soluble N-vinyl-2-oxazolidinone polymer.

DETERGENT COMPOSITION. E. B. Michaels (Stamford Chemical Industries, Inc.). *U. S. 3,067,144*. An improved multi-component cleaning and laundry detergent composition, substantially water-insoluble, consists of: (a) 1 to 3 parts by weight of a non-cationic organic synthetic detergent selected from the class consisting of ethylene oxide—higher alkyl phenol condensates; water soluble salts of the following: high fatty acid amides of lower molecular weight amino alkyl sulfonic acid, higher alkyl benzene sulfonic acid, alkyl sulfonic acids, higher alcohol esters of sulfocarboxylic acids, the higher alkyl sulfates, higher fatty acids of monoesters of monohydroxy alkyl sulfonic acids, higher fatty acids of monoesters of polyhydroxy alkyl sulfonic acids, sulfuric acid esters of fatty acids monoglycerides; and condensates of: ethylene oxide and higher fatty acids, ethylene oxide and fatty alcohols, and polyoxypropylene glycol and ethylene oxide; (b) 1 to 3 parts of a fatty alcohol in which the alkyl group contains 10 to 18 carbon atoms; (c) 1 to 3 parts of a polyalkoxy dihydric alcohol; and (d) 1 to 10 parts of an alkali metal phosphate builder selected from the class consisting of an alkali metal pyrophosphate and a mixture of an alkali metal pyrophosphate and an alkali metal orthophosphate.

Directory: ANALYTICAL • CONSULTING • ENGINEERING

HAHN LABORATORIES

Consulting and Analytical
Chemists

1111 Flora St. P.O. Box 1163 Columbia, S.C.

LAW & COMPANY

CHEMISTS

Consulting and Analytical

Atlanta, Ga. Montgomery, Ala. Wilmington, N.C.

The Fort Worth Laboratories Southwestern Laboratories

Since 1912

Consulting, Analytical Chemists
and Testing Engineers

Dallas
RI-2-2248

Fort Worth
ED-5-9321

Houston
CA-4-6347

WOODSON-TENENT LABORATORIES

Analytical and Consulting Chemists

Main offices and laboratories,
Memphis, Tenn.

Other laboratories: Cairo, Ill., Clarksdale, Miss.,
Des Moines, Ia., Little Rock, Ark., Wilson, Ark.

Established 1904

HOUSTON LABORATORIES

Analytical and Consulting Chemists

311 Chenevert Street P.O. Box 132 Houston 1, Texas

BARROW-AGEE LABORATORIES, INC.

Analytical and Consulting Chemists
and

Testing Engineers

Main Offices and Laboratories, MEMPHIS, TENNESSEE

Other Laboratories Shreveport, La. Decatur, Ala.

Greenville, Greenwood and Jackson, Miss.

Chattanooga and Nashville, Tenn.

Little Rock, Ark.

THE POPE TESTING LABORATORIES

Analytical Chemists

2618½ Main

P.O. Box 903

Dallas, Tex.

SEND
FOR

Free Data ON RESEARCH

- ☐ Services for YOU ☐ Analytical Services
☐ Surface Chemistry

Foster D. Snell, inc.

CONSULTING CHEMISTS • CHEMICAL ENGINEERS

29 West 15th Street

New York 11, New York

Watkins 4-8800

Direct Dialing Area 212

Baltimore, Md.

Bainbridge, N. Y.

MEMBER: AMERICAN COUNCIL OF INDEPENDENT LABORATORIES

CUMULATIVE 35-YEAR INDEX

of

Chemists' Section, Cotton Oil Press, 1917-24

Journal of the Oil and Fat Industries, 1924-32

Oil and Soap, 1932-47

Journal of the American Oil Chemists'

Society, 1947-52

Divided into Four Parts: Technical,

Committees, News, Authors

Price . . . \$5

Orders should be sent to the

**JOURNAL OF THE AMERICAN OIL
CHEMISTS' SOCIETY**

35 East Wacker Drive

Chicago 1, Illinois