selected from the group consisting of the acyclic unsatd. monobasic fat acids and the glyceryl esters thereof, carried out in the presence of a catalyst capable of polymerizing the reaction and an inert organic solvent, at a temp. between about —20°and about 300°

PERMANENT FINISH FOR TEXTILES. J. M. Hood (Am. Cyanamid Co.). *U. S. 2,371,892.* A compn. for finishing textiles comprises essentially a mixt. of an alc. reacted melamine-aldehyde condensation product and a salt of an alkoxypropylamine contg. at least 11 C atoms.

Abstracts

Soaps

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LANOLIN SOAPS. Milton A. Lesser. *Soap 21,* No. 4, 41-4, 86 (1945). The chemical properties, structure and requirements for use of lanolin are discussed. The history of the use of lanolin as a superfatting agent in soaps is reviewed. Superfatting, it was first thought, would eliminate the possibility of free alkali remaining in the finished soap and might combine with the alkali formed by hydrolysis when the soap was dissolved in water. The modern concept is that the use of superfatting materials in soap seems to be directed toward decreasing its defatting effect on the skin rather than toward counteracting its alkalinity.

There is a marked resemblance in both composition and function between wool fat and sebum of the human skin. This makes it a logical additive to soap. It also has excellent emollient effects, does not become rancid in soap, does not induce rancidity, does not hinder the homogeneous preparation of soaps, acts as a solvent for perfumes and does not deepen the tint of soaps. However, it does lower the lathering ability of the soap, but this may be counteracted by use of increased amounts of coconut oil. From the manufacturers' point of view lanolin prevents excess free alkali, reduces the tendency to split or crack, and makes the milling process easier.

THERMAL TRANSITIONS OF THE ALKALI PALMITATES. Robert D. Vold and Marjorie J. Vold. *J. Phys. Chem. 49,* 32-42 (1945). The transition points were detd. for the complete series of the alkali salts between 25° and the respective melting temps., together with their approx. changes of heat content. In all instances, one of these points indicates the change of microscopic external crystal form to a fluid medium. With the Li compd., this corresponds to the m.p. of 223°, at which an isotropic liquid is obtained. In the other compds., the above-mentioned transition occurs at lower temps. The temp. of formation of neat soap, and for all soaps having this form, is almost independent of the nature of the alkali ion and of the length of the fatty acid radical, as judged on the basis of a comparison of palmitates and stearates.

A NEW APPROACH TO THE EVALUATION OF WETTING, GRINDING AND DISPERSING AIDS. A. E. Bartlett. *Paint Ind. Mag. 60,* 48, 50-1; *Official Digest,* Federation Paint & Varnish Production Clubs No. 243, 76-83 (1945), an address. An apparent simplification of the possibilities of surface-active agents is evident if one disregards their effect on dispersion alone and considers their effects on wetting formations, such as faster mixing or getting more pigment in the mix, and their grinding function. If these differences are noted, surface-active agents can be divided into 3 classes: wetting, grinding and dispersing aids, each of which is capable of quick, accurate lab. evaluation. Use of this evaluation method prevents missing any important incidental characteristic of the agent. (*Chem. Abs.*)

DEVELOPMENT OF A GERMICIDAL SOAP. PART II. William S. Gump. *Soap 21,* No. 4, 50-1, 85, (1945). The results of various tests on toilet soap containing the compound G-11 as an active germicide have been reviewed. Handwashing experiments were carried out for one week and bacterial flora counts were made. These tests showed that the addition of a small amount of G-11 would produce an effective germicidal soap for many purposes.

THE FORMULATION OF PHENOLIC DISINFECTANTS. Paul A. Wolf. *Soap 21,* No. 4, 116-21, 141 (1945). This article discusses the effect of soap itself on germicidal effectiveness and the effect of soap on germicidal properties of phenols. Coconut oil soap, the unsaturated fatty acid soaps, sodium oleate and sodium resinate, potassium laurate and potassium castor soap have been cited as particularly germicidal. On the other hand soaps such as sodium oleate, sodium myristate, potassium palmitate and stearate have a marked inhibitory action on the bactericidal properties of phenols. Therefore in making successful disinfectant formulations these properties should be taken into consideration.

GLYCERINE DISTILLATION GREATLY IMPROVED BY HIGH VACUUM. G. J. Stockman. *Chem. & Met Eng. 52,* No. 4, 100-1 (1945). Now that steam jet high vacuum equipment is available, glycerine distillation at pressures in the range of 6 to 12 mm. Hg absolute and temperature of about 315 deg. F. has increased yields, eliminated sweet-water production and greatly reduced losses due to thermal decomposition. One distillation now suffices for the production of all grades of glycerine including commercial and high gravity.

EMULSION POLYMERIZATION OF ACRYLIC ESTERS. W. C. Mast, Lee T. Smith and C. H. Fisher. *Ind. & Eng. Chem. 37,* 365-9 (1945). Effects of various agents on the emulsion polymerization of acrylic esters are described, and directions are given for preparing several types of resin emulsions. Moderately stable emulsions may be obtained with Tergitol Penetrant No. 4 and ammonium persulfate or Triton K60 and hydrogen peroxide. Emulsions remarkably stable to electrolytes can be made with Triton 720 as emulsifier. Triton 720 and Tergitol Penetrant No. 4 can be used together in various proportions to produce emulsions of almost any desired stability to electrolytes. The viscosity of acrylic resin emulsions can be controlled over a wide range by using various quantities of ammonium alginate, modified casein, and Tergitol Penetrant No. 4.

PATENTS

DETERGENT COMPOSITIONS. Joseph S. Reichert, Samuel A. McNeight and Arthur A. Elston (E. I. du Pont de Nemours & Co.). *U. S. 2,362,401.* A bleaching and oxidizing detergent consisting of a combination of a solid peroxygen compound such as sodium perborate monohydrate, a solid organic acid hydride and soap, trisodium phosphate or other synthetic detergents.

DETERGENT COMPOSITION. Paul T. Zizinia and Thomas L. McKenna (Allied Chemical and Dye Corp.). *U. S. 2,364,767.* Synthetic detergents in the form of small globular, hollow particles comprised of alkyl aryl sulfonates containing mononuclear aryl radical and alkyl group containing 12-23 C atoms.

PREPARATION OF POWDERED SOAP. Alfred G. Houpt (American Cyanamid Co.). *U. S. 2,366,334.* Separating fatty acid soaps of black liquor soap from the rosin acids, by forming a hot solution of fatty acids, rosin acids and alkali, then cooling to precipitate the soaps of the fatty acids, then drying the fatty acid soaps under vacuum.

SULFATED DETERGENT COMPOUNDS. I. G. Farbenind. A.-G. *Belgian 443,918.* Unsaturated hydrocarbons of high molecular weight obtained by the hydrogenation of oxides of carbon are treated with sulfuric acid to obtain detergents with high foaming power. (*Soap*).

BLOWN AND LOADED SOAP OF LOW DENSITY. Savonnerie Couvreur S.P.R.L. *Belgian 447,840.* Before incorporation of the air or gas, in addn. to the fillers there is added to the fats anhyd. Na_2SO_4 or similar salt dissolved in a quantity of water which, on cooling, it retains as water of crystn. (*Chem. Abs.*)

DETERGENT. Chester Merle Suter (The Procter and Gamble Co.). *U. S. 2,366,133.* Manufacture of a detergent consisting of the condensation product of an olefin sulphonic acid, with an alkyl aromatic compound, in the presence of suitable halogenated hydrocarbon solvent and a boron trifluoride catalyst.

MANUFACTURE OF SOAP. Leopold Sender (The Sharples Corp.). *U. S. 2,369,372.* In the treatment of soap nigres, the process comprising separating impurities from a soap nigre together with a portion of the soap of the nigre, hereafter diluting the material separated from the nigre to liberate impurities from the resulting diluted mixture and separating the impurities from said mixture.

EXTRUDED SOAP. The Procter & Gamble Co. *British 555,034.* Detergent soap is manufd. by agitating and extruding in continuous bar form a mass of soap of appropriate compn., the extent of agitation being sufficient to produce a soap product contg. a substantial amt. of soap in the B-phase and the temp. of the soap leaving the agitation zone and issuing from the extrusion aperture being within a range, defined as to its upper limit by the critical temp. above which substantially no B-phase soap will be formed by agitation and as to its lower limit by the temp. below which soap loses its pasty cohesiveness.

SURFACE-ACTIVE COMPOUNDS. Alfred W. Baldwin, Noel W. Cusa and Henry Worthington (Imperial Chemical Industries, Ltd.). *British 555,129.* Surface-active compds. are prepd. by treating a primary or secondary amine with one or more mol. proportions of a 2,5-diketooxazolidine of the formula

$$O\cdot CO\cdot NR\cdot CHR'CO$$

in which R and R′ are both H or one of them, but not both, is a Me group.