odor and taste from fish liver oils comprises admixing activated C with a hydro-carbon solvent, deaerating the carbon-solvent mixt. by means of agitation, addg. the fish liver oil to the deaerated carbon solvent mixt. agitating the entire mass to effect adsorption of impurities on the carbon and sepg. the refined fish liver oil and solvent from the C and impurities adsorbed thereon.

Abstracts

Soaps

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SAVING IN USE OF SOAP. G. Ullmann. *Textile Mfr. 68,* 210 (1942). Detergency can be improved with savings in the amt. of soap required by using a small quantity of a suitable dispersing agent. The Hydrosan processes invented by U. are described. Small amts. of dispersing agents resistant to metals and salts are added to the soap baths. Highly sulfonated oils, particularly castor oil, exhibited this property. Other compds. are considered also. The theory of the mechanism of the dispersing medium is discussed. The process also removes deposits of lime soap which are highly detrimental to final finish. A remarkable reduction in the soap used can be achieved. Ultramicroscopic examn. shows that the Hydrosan process results in bringing the conditions, when using hard water, nearly to those of soap in distd. water. Even with distd. water the activity of the soap is increased by the process. The mechanism of the soaping lather is improved by sulfonated castor oil. A lather is not formed by sulfonated bodies but if mixed with soap in the correct proportion the density of the lather is much increased also. *(Chem. Abs.).*

BUILDERS FOR SOAPS. *Am. Perfumer & Essential Oil Rev. 45,* No. 2, 50 (1943). New builders include: sodium phosphometa-borate, sodium thiotetraphosphate, sodium aluminate, sodium alumino-silicates. The alumino-silicates find their chief use in base-exchange water softening.

AVOIDING SPOTTED SOAP. *Am. Perfumer & Essential Oil Rev. 45,* No. 2, 49 (1943). In tropical countries packed soap occasionally spots, due to the growth of molds. Soap is usually infected by spore laden air or by contaminated wrapping paper. The latter is particularly important as the size on the surface of the paper serves as an ideal media for the growth of fungi. To remove this danger the wrappers for soap intended for tropical countries should be exposed to formaldehyde vapor in a sealed room for 48 hours before use. The inclusion of antioxidants or preservatives is an additional safeguard.

SURFACE TREATMENT FOR MAGNESIUM. H. K. DeLong & Wm. H. Gross. *Proc. Am. Electroplaters' Soc. 1942,* 110-17. Steps in cleaning Mg include solvent or emulsion degreasing. alk. cathodic or soap cleaning in a bath such as Na_3PO_4 4 oz./gal., Na_2CO_3 4 oz./gal., soap or wetting agent 0.1 oz./gal. (soap omitted in electrolytic cleansing), followed by hot, and cold-water rinsing. *(Chem. Abs.).*

NEW METHODS FOR UTILIZING THE HEMICELLULOSE AND WASTE CHEMICALS FROM THE VISCOSE STAPLE FIBER INDUSTRY. E. Elod. *Melliand Textilber, 22,* 629 (1941); *Bull. Inst. Paper Chem. 13,* 217. By a weak acid prehydrolysis a pulp with a high *a*-cellulose content can be recovered and the hemicelluloses (I) in the prehydrolyzate utilized. The chips or straw is heated at 130° with 0.5 *N* H_2SO_4 for several hrs. The residue is further pulped by the sulfate method. The I can be used for the manuf. of yeast, sylose, furfural or binding agents in the soap industry.

FREEZING POINTS, DENSITIES AND REFRACTIVE INDEXES OF THE SYSTEM GLYCEROL-ETHYLENE GLYCOL-WATER. J. A. Spangler and E. C. H. Davies. *Ind. Eng. Chem. Anal. Ed. 15,* 96-9 (1943). The freezing points of mixtures of these compds, and an easy method of analysis of any mixture of them is given. The refractive indexes and absolute densities (all weighings reduced to vacuum and water at max. density taken as unity) were detd. at 25° C. From the tables given it is possible to det. accurately the amt. of glycerol and ethylene glycol in an aq. soln, by using the density and refractive index for that soln.

PATENTS

PARTITIONED SOAP AND PROCESS OF FORMING THE SAME. J. W. Bodman and F. F. Pease (Lever Bros. Co.). *U. S. 2,310,931.*

REMOVING INORGANIC SALTS FROM ORGANIC SULFONATES. D. J. Potter (Colgate-Palmolive-Peet Co.). *U. S. 2,307,953.*

DRYING APPARATUS AND METHOD FOR SYNTHETIC DETERGENTS. W. Davey (Colgate-Palmolive-Peet Co.). *U. S. 2,307,995.*

THICKENING OF SOLUTIONS. M. Katzman and F. J. Cahn (Emulsol Corp.). *U. S. 2,307,047.* A substantially clear shampoo soln. of at least 5% of an alkylolamine salt of a H_2SO_4 ester of a fat alc. and contg. a small proportion of a caprylic acid mono-ester of diethylene glycol, which ester is sol. in said soln. sufficient to appreciably thicken the same is described.

SOAP. R. Thomas and H. B. Oakley (Lever Bros. Co.). *U. S. 2,310,475.* This soap of improved hard water characteristics is made from 10-30% satd. C_{18} or higher fat acids, 30% unsatd. and at least 30% of a stearic and palmitic acid mixt. in which the stearic does not exceed 15%.

PROCESS AND COMPOSITION FOR SOFTENING HARD WATER. N. B. Tucker (Procter & Gamble). *U. S. 2,311,008.* The process of reducing the amt. of soap required for washing in hard water comprises adding to said water a water-sol. salt derived from a polyglycollic acid ether of an aliphatic polyhydroxy substance selected from the group consisting of carbohydrates, polyhydric alcs. and polyhydroxy carboxylic acids and a base selected from the group consisting of alkali-metal bases, ammonia and org. N bases, said polyglycollic acid ether contg. at least 3 carboxyl groups per mol., the pH value of said salt in soln. being sufficiently great to prevent the pptn. of acid soap.

PINE-OIL COMPOSITION SUITABLE FOR USE AS PARASITICIDES OR CLEANSING AGENTS. J. N. Borglin (Hercules Powder Co.). *U. S. 2,291,205.* Pine oil is used with an emulsifying agent which is mainly an alkali soap of polymerized rosin, and with sufficient water to cause the formation of a clear mobile homogeneous mixt. but insufficient to cause the formation of a sep. aq. phase. *(Chem. Abs.)*