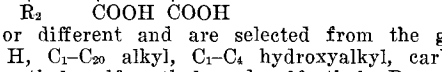
R is —CH_2—CH_2—COOX. X is hydrogen, alkali metal, or ammonium.

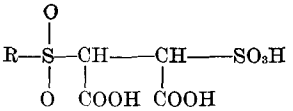
α-AMINO-β-SULFOSUCCINATES. V. Lamberti (Lever Bros. Co.). *U.S. 3,936,448.* An α-substituted-β-sulfosuccinic acid has the formula



be the same or different and are selected from the group consisting of H, C_1–C_{20} alkyl, C_1–C_4 hydroxyalkyl, carboxymethyl, carboxyethyl, sulfomethyl, and sulfoethyl. R_1 and R_2 may not at the same time be H. Various alkali metal, ammonium, and substituted ammonium salts of the acid are also described.

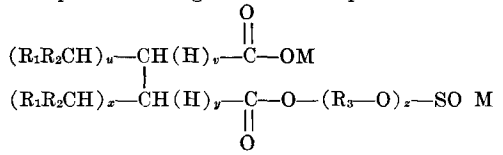
DISHWASHING COMPOSITIONS. D.S. Corliss and J.F. Pacheco (FMC Corp.). *U.S. 3,936,386.* An agglomerated dishwashing detergent composition contains 0.5–10% sodium dichloroisocyanurate dihydrate, 25–60% of a polyphosphate having an Na_2O or K_2O to P_2O_5 ratio of 1:1 to 2:1, 0–60% sodium carbonate, 10–15% of a sodium silicate having a SiO_2 to Na_2O ratio of 2.40 to 3.22, 1–10% low foaming chlorine-compatible nonionic surfactant, and 5–20% water.

SULFOSUCCINATE DERIVATIVES AS DETERGENT BUILDERS. V. Lamberti (Lever Bros. Co.). *U.S. 3,935,206.* The builder is an α-alkylsulfonyl-β-sulfosuccinic acid having the general formula



or the alkali metal, ammonium, monoethanolammonium, diethanolammonium, trimethylammonium, tetramethylammonium, morpholinium, N-methylmonoethanolammonium, and N-ethylmonoethanolammonium salt thereof. R is an alkyl containing 1–30 carbon atoms.

HIGH SUDSING PHOSPHATE-FREE DETERGENT COMPOSITION. S.H. Sharman (Chevron Research Co.). *U.S. 3,935,131.* The composition comprises a detergent active component of the formula



R_1 and R_2 are linear aliphatic groups of 3–19 carbon atoms; R_3 is alkylene of 2–4 carbon atoms; *u*, *v*, *x*, and *y* are 0 or 1; *z* is an integer from 1 to 4; and M is H or a water soluble salt-forming cation. The foam enhancing component is a straight chain primary alcohol of 11 to 14 carbon atoms.

DETERGENT COMPOSITION FOR CLEANING BATHTUBS. S. Hirano, J. Tsumura, I. Imaseki and Y. Kawasaki (Kabushiki Kaisha Tsumura Juntendo). *U.S. 3,935,130.* The composition consists of (1) 100 parts of a detergent base comprising 40–85% of an alkylaryl sulfonate, 10–40% of a polyoxyethylene alkylaryl ether, and 5–20% of a cyclic imidinium compound; (2) 9–30 parts of a diethylene glycol monoalkyl ether; (3) 2–15 parts of an ethanolamine; and (4) sufficient water to provide an aqueous solution of components (1) through (3).

LIQUID CLEANING COMPOSITIONS. W.J. Jabalee. *U.S. 3,935,129.* An aqueous detergent composition comprises 0–65 parts of an alkali metal silicate and a combination of an anionic organic detergent, a nonionic organic detergent, triethanolamine, glycerine, and urea, each in certain proportions to the silicate.

COMBINATION DETERGENT BUILDER. T.J. Hau and S.D. Cherney (Procter & Gamble). *U.S. 3,939,100.* The detergent additive comprises an alkali metal pyrophosphate and an alkaline earth metal pyrophosphate having a mean particle diameter of less than 25 microns. The ratio of the alkali metal pyrophosphate to the other pyrophosphate ranges from 60:1 to 1:8. A detergent composition comprises 5–60% alkali metal pyrophosphate, 1–50% alkaline metal pyrophosphate, and 2–40% organic detergent.

THE SYNTHESIS OF A HOMOLOGOUS SERIES OF PURE A-LAUROYL-W-HYDROXY POLYOXYETHYLENES. W. Gerhardt and H-R. Holzbauer. *Tenside Deterg.* 12(6), 313–5 (1975). In continuation of work on defined polyethylene oxide adducts, the preparation of a-lauroyl-w-hydroxy polyoxyethylenes of the homologous polyethylene oxide series of ethylene glycol to a hydro-w-hydroxy-octa (oxyethylene) with yields of about 95%. The structure and purity are determined by thin-layer chromatography and infrared spectroscopy.

RESEARCH ON THE BIODEGRADABILITY AND FISH TOXICITY OF TWO ORGANIC COMPLEX FORMERS BASED ON PHOSPHONIC ACID (ATMP AND HEDP). L. Huber. *Tenside Deterg.* 12(6), 316–22 (1975). Tests were carried out on the biodegradability and inhibiting behavior as well as the fish toxicity of two organic complex formers based on phosphonic acid (aminotrimethylenephosphonic acid and hydroxyethane-1,1-diphosphonic acid). Advantages and disadvantages of these products when used in cooling and process water circuits, as well as possibly detergents and cleaners, and the resulting influences on waterways, rivers, lakes, etc. are to be appraised.

SOME ASPECTS ON THE DETERMINATION OF HLB OF SURFACE-ACTIVE AGENTS. A. Olano and I. Martinez. *Tenside Deterg.* 12(6), 334–6 (1975). Theoretical HLB values, calculated according to Davies and Griffin's formulae have been critically examined by comparing them with both retention values in GLC and water number when a group of highly pure fatty esters of polyhydric alcohols were tested.

OIL HERDERS—A NEW ASSISTANT TO DEOILERS FROM WATER SURFACES. H. Hellmann, (Koblenz). *Tenside Deterg.* 12(6), 330–34 (1975). The tendency of mineral oils at a density below 1.0 to spread on water surfaces inhibited in some cases the rational use of oil adsorbants and collectors. New chemicals (e.g. Shell Oil Herder) cause a contraction of already wide spread oil films at a thickness of 0.5 to 5 millimeters. The possible practical importance and harmful effects of water biocoenoses are discussed. ■