# Abstracts

## Soaps

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THE DISSIMILATION OF GLYCEROL BY COLI-AEROGENES INTERMEDIATES. M. N. Mickelson and C. H. Werkman. *J. Bac.* 39, 709-15 (1940). When glycerol was fermented by different species of Citrobacter, yields of trimethylene glycol (I) varying from 30-60% were obtained. Acrolein appeared during the fermentation and is probably an intermediate product. The addn. of sulfite did not diminish the formation of (I) and in its presence considerable accumulated. Acrolein was not attacked when added to fermenting glycerol. Fumaric acid acted as a H acceptor but did not retard the formation of (I) *(Chem. Abs.)*.

SOAP AIDS INFLUENZA WAR. *Soap* 16, No. 9, 47 (1940). The addition of soap to vaccines used in the prevention of influenza is a new technique recently developed by Drs. Thomas Francis, Jr., and C. Chester Stock of New York University's College of Medicine, as the climax of a series of previous researches by other scientists. In experiments on mice, it was found that when a specially prepared soap solution is mixed with influenza virus, a new kind of vaccine, "antigen" is produced. The virus thus treated can no longer grow and cause the disease but it retains the power of building up resistance to influenza. Vaccinated with soap-treated virus, the animals resisted infection when fully active virus was instilled into them.

Soaps that made the virus harmless consisted of molecules in which there were 18 C atoms, it was found, and the most effective soaps were those made from oleic acid. Just how the oleic acid soap renders the influenza virus inactive without altering it too much, is still incompletely understood.

SPECIALIZED SOAPS AND CLEANSERS. Archibald Rayner. *Soap Perfumery and Cosmetics, 13,* 7, 437 (1940). Mr. Rayner discusses perborate washing blocks, mechanics' hand soaps, hand-protecting preparations, sugar soaps and brush cleaners, cleaners for cookers, wire-drawing soap, tailor's soap, soaps for disinfectants, creosote disinfectant blocks, naphthenic acid soaps, solid pine disinfectants, and pine oil fluids.

THE PHARMACOLOGY OF SOAPS. Byron Emery and Leroy Edwards. *J. Am. Pharm. Assoc. 29,* 251 (1940). II. The irritant action of soaps on human skin. III. The irritant action of sodium alkyl sulfates on human skin. Ibid. 254-5. Pure Na alkyl sulfates from $C_8$ to $C_{18}$ are less irritant to the human skin than the pure Na or K salts of the satd. acids from $C_8$ to $C_{18}$. Na lauryl sulfate is the most frequent cause of skin irritation in this series, but is closely followed by myristyl sulfate *(Chem. Abs.)*.

### PATENTS

CLEANING COMPOSITION AND PROCESS. Van Darsey and Harold McVey (Parker Rust-Proof Co.). *U.S. 2,208,524.* A process which comprises subjecting iron or steel surfaces to the action of a cleaning emulsion containing kerosene, triethanolamine oleate, and water and thereafter applying to the surfaces a chemical coating composition comprising acid phosphates to produce thereon corrosion-resistant and apaintholding coatings integral with the metallic surfaces.

EMULSIFYING COMPOSITION. Roland Knapp (National Oil Products Co.). *U.S. 2,207,256.* An emulsifier comprising a potassium soap of a higher fatty acid, a degraded glyceride of a higher fatty acid and diethylene glycol, the molal ratio of soap to degraded glyceride being at least 1.

DETERGENT AND EMULSIFYING AGENT. Fred Muncie (Colgate-Palmolive-Peet Co.) *U.S. 2,209,634.* The process which comprises warming a mixture containing in molecular proportion about one part of coconut oil, about two parts of substantially anhydrous glycerine, from about one to three parts of boric acid, and more than three parts of sulphuric acid at from 30° to 90° C. until the product is miscible with water, and neutralizing the reaction product.

CLEANSING FLUID. Cyrus Manierre. *U.S. 2,209,785.* A cleansing composition consisting of petroleum solvent, 86% by volume, sulfonated oil, 8%. and a low titer fatty acid, 6%, said solvent being one of the general class of turpentine substitutes having flash point above 105° F., an initial boiling point not less than 300° F., and an end point between 350-450° F., and said sulfonated oil being a neutral sulfonated oil selected from the group consisting of castor, olive, teaseed and neetsfoot oil.

WASHING, CLEANSING, BLEACHING AND RINSING AGENTS. Henkel and Cie. *Brit. 518,576.* Improvements in the process for the manufacture of washing, cleansing, bleaching and rinsing agents containing per-compounds, i.e., perborates, percarbonates, perphosphates, perpyrophosphates and additive compounds of hydrogen peroxide with solid substances characterised in that a solution, suspension or molten mass of the washing, cleansing, bleaching and rinsing agent components, without the per-compounds, is sprayed in the form of a hollow cone in a spraying apparatus, and powdered solid per-compounds are sprayed into the upper part of the hollow cone so that they come into contact with the still semi-moist particles of the hollow one, the spraying operation being carried out in current of hot or cold gas.

SATURATED FATTY ACIDS IN SOAP MANUFACTURE. Lever Brothers and Unilever, Ltd. *Brit. 521,566.* This invention is based on the discovery that while the detrimental effect of the saturated fatty acids having from 12 to 18 C atoms in the molecule increases with the molecular weight, this does not hold good in the case of saturated fatty acids having more than 18 C atoms in the molecule, such as, arachidic, (20 C atoms), behenic (22), and lignoceric (24) acids. It has been found that not only may these fatty acids be present in larger quantities than palmitic and stearic acid, but that their presence within certain limits actually enhances the clarity of the soap solution and even allows of the incorporation of larger quantities of saturated fatty acids having 18 C atoms or less in the molecule.

SOAP PREPARED WITH USE OF LATEX. Alajos Zartler. *Hung. 123,521.* To soap stock is added a homogenized emulsion or aqueous dispersion of rubber latex, (prepd. by cataphosesis or as a real solution or in form of finely powd. rubber) in amts. of 10-15%. Casein or cow milk or gum arabic may also be added to prevent the coagulation of the rubber latex.