Processing and Crystal Structure . . .

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• *Industry Items*

Cargill engineers are putting the finishing touches on a new soybean processing plant in Gainesville, Ga. Phillip St. Clair, Cargill manager in Gainesville, said the new facility will process its first soybeans by May 1. Capacity of the plant is 10 million bushels of beans the first year, an amount greater than the total soybean production of the state last year, but less than one third of its annual consumption. Ultimate crushing potential of the new plant is 15 million bushels per year.

DESOTO CHEMICAL COATINGS new 70,000 square foot laboratory is scheduled for completion this month, according to an announcement by company president S. U. Greenberg (1943). The laboratory will engage in its own product research and development, as well as coordinate research being done in the 16 plants comprising DeSoto's five divisions. Under construction concurrently is an addition designed to double the firm's 35,000 square foot administrative headquarters. DeSoto's present administrative center, also located in Des Plaines, Illinois, was opened three years ago.

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aromatic acid and about 0.5 to 3.0 mole equivalents of C_{10} to C_{30} fatty acid per mole equivalent of aromatic acid.

SURFACTANT MIXTURES. G. L. Broussalian (Monsanto Co.). *U.S. 3,303,137.* A detergent mixture is claimed, comprising a mixture of (a) from 40 to 98% by wt. of a vicinal acylamido sulfonate having the formula (I):

R″—CO—NH—C(R)H—C(SO_3M)H—R′ where R and R′ are either alkyl radicals or hydrogen, the total number of C atoms in R plus R′ being 8 to 22; M is an alkali metal, alkaline earth metal or ammonium cation; R″ is an alkyl radical containing 1 to 6 C atoms; (b) from 1 to 30% by wt. of a beta-hydroxy sulfonate having the formula: RCHOH—C(SO_3M)H—R′ with R, R′ and M having the same meaning as in formula (I); and (c) from 0.5 to 30% by wt. of a beta-ethylenically unsaturated sulfonate having the formula: RCH=CH—C(SO_3M)H—R′, where M has the same meaning as in formula (I) and R and R′ are either alkyl radicals or hydrogen, the total number of C atoms in R plus R′ being 7 to 21.

TRIETHANOLAMINE STRAIGHT CHAIN SECONDARY ALKYLBENZENE SULFONATE LIQUID DETERGENT COMPOSITIONS CONTAINING DEGELLING AGENTS. W. J. DeWitt and R. C. Taylor (Atlantic Refining Co.). *U.S. 3,303,138.* A non-gelling aqueous solution is described, consisting essentially of 40 to 70% by wt. of triethanolamine straight chain secondary alkylbenzene sulfonates having a straight alkyl side chain length of 9 to 15 C atoms and an organic degelling compound in amounts at least sufficient to prevent the gelling of the sulfonates in aqueous solution. The degelling compounds are selected from the group consisting of glycols, polyglycols, hydroxy diamines, N-alkyl substituted *beta*-amino propionic acids and their salts and derivatives of cycloimidine.

BIODEGRADABLE SURFACTANTS. E. K. Jones (Universal Oil Products Co.). *U.S. 3,303,233.* A process is described for the preparation of an olefinic alkylating agent for use in the production of a biologically soft alkylaryl detergent product. A straight chain paraffin is separated from a paraffinic naphtha boiling in the range 125–250C, where it is contained in admixture with branched isomers. The straight chain paraffin thus separated is then converted to a monoolefin derivative of straight chain structure by a series of steps comprising monohalogenating the paraffin at a temperature from 0 to 400C and dehydrohalogenating the halogenated paraffin at a temperature from 50 to 400C.

CLEANSING COMPOSITION AND METHOD OF MANUFACTURE THEREOF. G. G. Corey (Colgate-Palmolive Co.). *U.S. 3,304,262.* A stable gelated oil-in-water emulsion cleansing composition consists essentially of (by weight of the composition) 20–50% odorless mineral spirits, 40–60% water, 5–15% of a condensate of an aliphatic alcohol with 4–12 mols of ethylene oxide, the aliphatic alcohol containing 12 to 20C atoms, from 0.1 to 10% of a hydrophobic-hydrophilic polyoxyalkylene polyoxypropylene glycol of the formula $HO(C_2H_4O)_m(C_3H_6O)_n(C_2H_4O)_mH$, where n and m are numbers such that the molecular weight of $(C_3H_6O)_n$ is between 1750 and 3500 and that $(C_2H_4O)_m$ equals 20–50% of the total weight of the compound, and about 3 to 14% of higher fatty acid, sufficient to gel the ingredients into a stable oil-in-water emulsion having a pH between 7 and 9.

PHOSPHINE OXIDE DETERGENT COMPOSITION. J. T. Yoke III and R. G. Laughlin (Procter & Gamble Co.). *U.S. 3,304,263.* A detergent composition is claimed, consisting essentially of a tertiary phosphine oxide detergent compound having the formula RR′R″P→O, where R is an alkyl, alkenyl or monohydroxyalkyl radical with from 10 to 18C atoms and R′ and R″ are each selected from the group consisting of alkyl and monohydroxyalkyl radicals containing from 1 to 3C atoms. In addition to the phosphine oxide detergent compound, the detergent composition contains a material selected from the group consisting of anionic detergents, nonionic detergents, water-soluble inorganic builders, and organic alkaline sequestrant builders, the ratio of the phosphine oxide compound to the other material ranging from about 4:1 to about 1:20.

TERTIARY PHOSPHINE OXIDE COMPOUNDS. J. T. Yoke III and R. G. Laughlin (Procter & Gamble Co.). *U.S. 3,304,330.* Tertiary phosphine oxide compounds having the formula RR′R″P→O are claimed, where R is an alkyl or monohydroxyalkyl radical with from 10 to 18C atoms, R′ and R″ are selected from the group consisting of alkyl and monohydroxyalkyl radicals containing from 1 to 3C atoms.