

ALIEN PROPERTY CUSTODIAN

PROCESS FOR OBTAINING DETERGING, WETTING, FOAMING, METALLIC SALT DISPERSING AND EMULSIFYING AGENTS AND THE AGENTS OBTAINED BY THIS PROCESS

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The present invention relates to novel deterging, wetting, foaming, metallic salt dispersing agents (more particularly for the dispersion of earth-alkaline salts) and emulsifying agents and to the process for making the same.

For obtaining agents of this kind it has already been suggested to treat with sulphuric acid the product of the condensation of certain fatty acids with monoethanolamine; but the obtained products lacked more or less of efficiency with respect to one or more of the deterging, wetting, foaming, dispersing or emulsifying properties. Furthermore, it was impossible directly to obtain products in a finely divided pulverulent form which did no longer agglomerate.

On the other hand, the use of mono-substituted amines sometimes led to condensation products containing more than one amine molecule and thus one or more of the above mentioned properties were more or less suppressed.

According to the present invention it has been devised to start from murumuru butter or from fatty acids derived from partially saponified murumuru butter and to condense them with poly-substituted amines, the so obtained condensation product being then treated with an acid capable of yielding a sulphonated or phosphonated derivative or a sulphuric or phosphoric ether.

As poly-substituted amines, methyl-ethylamine, methyl-propylamine, methyl-butylamine, methyl or ethyl-ethanolamine, propanolamine, methyl or ethyl - propanolamine, dodecyl - ethanolamine, oleyl-ethanolamine, ricin-ethanolamine and the like may be used.

As acid, ordinary mono-hydrated or anhydride loaden sulphuric acid, chloro-sulphonic acid, phosphoric anhydride acid chlorides or a mixture of the said various bodies and the like may be used.

As starting product, mixtures of murumuru butter with lauric acid and vegetable oil hydrogenation products condensed either with the above mentioned amines or with the products resulting from the condensation of ammonia or of an amine with the terpenic hydrocarbons and alcohols and the ethers of the latter may be used.

The sulphonation and phosphonation are performed with or without the presence of bodies such as sodium tungstate, ammonium vanadate, chloraldehyde and the like.

The products obtained have properties which are very marked as to the wetting of vegetable and animal textile fibers and of leather and hides as well as of furs; they dissolve and disperse lime soaps and other metallic soaps and yield a copious and persistent foam with impure waters; owing to their detergent properties they are well suited as industrial and domestic cleaning agents or as auxiliary agents for bleaching or dyeing agents; they are also good emulsifying agents. They are obtained directly without any physical or mechanical intervention in the form of a very fine powder of low density and which does not agglomerate.

As a non limitative example the following will be given: to 200 kilogs. of murumuru butter 70 kilogs. of methyl monoethanolamine are added and the whole is heated during two hours at 170° C. while removing the condensation water. A solid product is obtained, 100 kilogs. of which are treated with 80 kilogs. of oleum at 20% while stirring until a perfect solubility in cold water is obtained, in the presence of 10 grams of metavanadate of ammonia. The obtained sulphonate is added with sodium carbonate until neutral and it directly yields the soda salt in the form of a very fine and very dry powder.

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