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FINGER NAIL DETERGENT

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This invention relates to a finger nail detergent specifically intended for cleansing the finger nails of dirt, oils and coatings such as nitrocellulose, glossy lacquer, and the like.

The object of this invention is to provide an effective detergent, preferably of a mild or substantially odorless nature which contains hydroxylated substances active in cleansing the finger nails from foreign substances of a varied character.

As the essential component of the detergent I may employ hydroxylated bodies of the nature of the glycols, or, preferably utilize some of the derivatives of the glycols and which contain a free hydroxyl group. One of these which is appropriate for use in the present invention is the mono ethyl ether of ethylene glycol. In like manner, the mono methyl ether of ethylene glycol may be used. These substances have the advantage of exerting some solvent action on finger nail enamel made from nitrocellulose. The life of a nitrocellulose coating applied to the finger nails is a very brief one, as the coating soon becomes dulled, scratched, or chipped, and in the exposed places where the enamel has fallen off dirt and stains are likely to collect showing in the roughened surface thereby produced.

Many of the common solvents are ineffective for this purpose because they not only possess offensive or pungent odors, but do not have the general cleansing action possessed by substances having in the molecular structure a hydroxyl group.

In like manner some of the esters of the glycol may be employed such as the mono acetate, also the more complicated ethers such as diethylene glycol and its mono methyl or mono ethyl ether derivatives. Similarly the esters of diethylene glycol may be utilized.

The valuable detergent effect of the hydroxyl group for dirt, stains, and the like, is thus coupled with the additional cleansing action of the ether and ester group with respect to nitrocellulose finger nail enamel.

In conjunction with the hydroxylated basis, I prefer to employ a volatile solvent such as ethyl alcohol, methyl alcohol, isopropyl alcohol, and the like, or the esters of these alcohols such as the formate or acetate. In like manner, I may employ as the carrier fluid for the heavier hydroxylated basis a ketone such as acetone or methyl ethyl ketone.

Slight additions of perfumes serve to enhance the odor of the composition and in some cases dyes, or other coloring agents may be used to alter the appearance. Preferably I exclude from the detergent any substantial proportion of highly odoriferous substances such as amyl acetate, butyl acetate, butyl alcohol, and the like, since these would impart an objectionable odor of "banana liquid". I wish in particular to avoid an odor of this character as it is rather difficult to eliminate from a boudoir or bathroom where customarily a detergent of this kind would be used.

Also, I prefer to have absent from my detergent fatty oils, non-volatile petroleum oils, greases, and the like, because these would leave an oily surface on the finger nails. Should it be desired thereafter to coat the finger nails with an enamel, the adherence to the greasy surface would not be satisfactory.

Also, I prefer to have absent resinous substances which might remain on the finger nails and exhibit a stickiness which would attract dust and dirt.

Still more important is the elimination of waxes such as paraffin or ceresin wax as these might prevent from drying in the rapid manner generally required and at the same time traces of wax on the surface of the finger nails which would tend to prevent adhesion of the nitrocellulose enamel, in case the latter is to be applied.

In fact, I preferably avoid the presence of

any non-volatile substance in my detergent composition.

In its preferred form, therefore, it is constituted of a detergent basis of a hydroxylated nature and possessed of a medium rate of drying, sufficient to allow proper application and cleansing by scrubbing or bathing. Such basis being employed in conjunction with a carrier fluid.

Suitable illustrative detergent compositions are set forth in the following formulæ:

A.

	Parts by volume
Ethyl oxybutyrate	40
Acetone	5
Ethyl alcohol	55

B.

Mono ethyl ether of ethylene glycol	40
Ethyl alcohol	60

C.

Ethyl lactate	40
Isopropyl alcohol	55
Acetone	5

In the foregoing it will be noted that I prefer to have the carrier fluid in excess of the hydroxylated detergent basis. The proportion of 60 parts by volume of the carrier fluid to 40 parts of the detergent basis is well adapted to secure the necessary mobility and detergent action.

Absent from my composition are corrosive substances such as phenol and cresol and similar aromatic compounds containing the hydroxyl group. The hydroxylated substances which I employ are neutral mild products free from any corrosive acid or irritating body. Preferably these have boiling points between 100° C. and 200° C. and are members of the aliphatic series.

What I claim is:—

1. As a composition for cleaning the finger nails, a glycol type detergent basis having a medium rate of drying, and a volatile carrier fluid.

2. As a composition for cleansing the finger nails, a detergent basis containing a glycol derivative having a free hydroxyl group, and a volatile carrier fluid, the composition being rapid drying.

3. As a composition for cleaning the finger nails, a compound boiling between 100 and 200° C. selected from the group consisting of glycols, glycol ethers, and aliphatic hydroxy esters, and a volatile carrier fluid, the composition being rapid drying and substantially free from irritating and corrosive action.

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